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X-RAY DATASET COMPREHENSIVE ANALYSIS

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Disease: No Finding

Total Cases: 2754

AGE STATISTICS:

Average Age : 51.1 years
Median Age : 53.0 years
Age Range : 9 - 94 years
Std Deviation : 17.0 years

AGE DISTRIBUTION:

Pediatric (<18) : 96 cases (3.5%)
Adult (18-65) : 2112 cases (76.7%)
Elderly (>65) : 546 cases (19.8%)

GENDER DISTRIBUTION:

M : 1406 cases (51.1%)
F : 1348 cases (48.9%)

VIEW POSITION DISTRIBUTION:

PA (Posterior) : 1977 cases (71.8%)
AP (Anterior) : 777 cases (28.2%)

IMAGE QUALITY METRICS:

Brightness:

Average : 134.57
Range : 57.96 - 216.27
Std Deviation : 23.83
Low (<100) : 112 cases (4.1%)
Medium (100-180) : 2605 cases (94.6%)
High (>180) : 37 cases (1.3%)

Contrast (Std Dev of Pixels):

Average : 58.90
Range : 24.91 - 88.83

Edge Density (Feature Detection):

Average : 0.0080
Range : 0.0004 - 0.0359

Entropy (Information Content):

Average : 7.44
Range : 4.60 - 7.86

Lung Area Ratio:

Average : 0.6105
Range : 0.3021 - 0.9374

Sharpness (Laplacian Variance):

Average : 100.95
Range : 9.73 - 384.21
Potentially Blurry: 1639 cases (59.5%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 2754 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : -0.061
Age vs Contrast : +0.039
Age vs Edge Density : +0.024

COMMON COMBINATIONS (Gender + View):

F-PA : 1024 cases (37.2%)
M-PA : 953 cases (34.6%)
M-AP : 453 cases (16.4%)
F-AP : 324 cases (11.8%)

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Disease: Infiltration

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Total Cases: 830

AGE STATISTICS:

Average Age : 50.6 years
Median Age : 53.0 years
Age Range : 13 - 94 years
Std Deviation : 16.9 years

AGE DISTRIBUTION:

Pediatric (<18) : 23 cases (2.8%)
Adult (18-65) : 651 cases (78.4%)
Elderly (>65) : 156 cases (18.8%)

GENDER DISTRIBUTION:

M : 419 cases (50.5%)
F : 411 cases (49.5%)

VIEW POSITION DISTRIBUTION:

PA (Posterior) : 415 cases (50.0%)
AP (Anterior) : 415 cases (50.0%)

IMAGE QUALITY METRICS:

Brightness:

Average : 125.29
Range : 82.82 - 189.09
Std Deviation : 20.98
Low (<100) : 58 cases (7.0%)
Medium (100-180): 769 cases (92.7%)
High (>180) : 3 cases (0.4%)

Contrast (Std Dev of Pixels):

Average : 58.90
Range : 21.38 - 81.30

Edge Density (Feature Detection):

Average : 0.0086
Range : 0.0006 - 0.0347

Entropy (Information Content):

Average : 7.41
Range : 5.91 - 7.84

Lung Area Ratio:

Average : 0.6025
Range : 0.3153 - 0.9024

Sharpness (Laplacian Variance):

Average : 111.04
Range : 11.36 - 303.68
Potentially Blurry: 423 cases (51.0%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 830 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : +0.047
Age vs Contrast : +0.077
Age vs Edge Density : -0.014

COMMON COMBINATIONS (Gender + View):

M-AP : 227 cases (27.3%)
F-PA : 223 cases (26.9%)
M-PA : 192 cases (23.1%)
F-AP : 188 cases (22.7%)

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Disease: Effusion

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Total Cases: 487

AGE STATISTICS:

Average Age : 57.8 years
Median Age : 58.0 years
Age Range : 22 - 94 years

Std Deviation : 15.1 years

AGE DISTRIBUTION:

Pediatric (<18)	:	0 cases (0.0%)
Adult (18–65)	:	343 cases (70.4%)
Elderly (>65)	:	144 cases (29.6%)

GENDER DISTRIBUTION:

F	:	272 cases (55.9%)
M	:	215 cases (44.1%)

VIEW POSITION DISTRIBUTION:

PA (Posterior)	:	254 cases (52.2%)
AP (Anterior)	:	233 cases (47.8%)

IMAGE QUALITY METRICS:

Brightness:

Average	:	126.62
Range	:	76.59 – 192.98
Std Deviation	:	22.76
Low (<100)	:	34 cases (7.0%)
Medium (100–180)	:	448 cases (92.0%)
High (>180)	:	5 cases (1.0%)

Contrast (Std Dev of Pixels):

Average	:	59.66
Range	:	21.38 – 81.30

Edge Density (Feature Detection):

Average	:	0.0089
Range	:	0.0009 – 0.0357

Entropy (Information Content):

Average	:	7.41
Range	:	5.91 – 7.82

Lung Area Ratio:

Average	:	0.6012
Range	:	0.3791 – 0.8727

Sharpness (Laplacian Variance):

Average	:	111.46
Range	:	13.75 – 323.83
Potentially Blurry:		249 cases (51.1%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024	:	487 cases (100.0%)
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CORRELATION ANALYSIS:

Age vs Brightness	:	+0.092
Age vs Contrast	:	+0.039
Age vs Edge Density	:	+0.118

COMMON COMBINATIONS (Gender + View):

F-AP	:	140 cases (28.7%)
F-PA	:	132 cases (27.1%)
M-PA	:	122 cases (25.1%)
M-AP	:	93 cases (19.1%)

Disease: Atelectasis

Total Cases: 460

AGE STATISTICS:

Average Age	:	52.5 years
Median Age	:	54.0 years
Age Range	:	12 – 93 years
Std Deviation	:	15.9 years

AGE DISTRIBUTION:

Pediatric (<18)	:	3 cases (0.7%)
Adult (18–65)	:	360 cases (78.3%)
Elderly (>65)	:	97 cases (21.1%)

GENDER DISTRIBUTION:

M	:	268 cases (58.3%)
F	:	192 cases (41.7%)

VIEW POSITION DISTRIBUTION:

PA (Posterior)	:	233 cases (50.7%)
AP (Anterior)	:	227 cases (49.3%)

IMAGE QUALITY METRICS:

Brightness:

Average	:	129.61
Range	:	83.62 – 189.79
Std Deviation	:	22.22
Low (<100)	:	19 cases (4.1%)
Medium (100–180)	:	432 cases (93.9%)
High (>180)	:	9 cases (2.0%)

Contrast (Std Dev of Pixels):

Average	:	58.75
Range	:	21.38 – 82.93

Edge Density (Feature Detection):

Average	:	0.0080
Range	:	0.0007 – 0.0357

Entropy (Information Content):

Average	:	7.44
Range	:	5.84 – 7.85

Lung Area Ratio:

Average : 0.5971
Range : 0.3472 - 0.8963

Sharpness (Laplacian Variance):

Average : 117.38
Range : 13.65 - 303.68
Potentially Blurry: 217 cases (47.2%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 460 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : +0.011
Age vs Contrast : +0.062
Age vs Edge Density : +0.053

COMMON COMBINATIONS (Gender + View):

M-AP : 135 cases (29.3%)
M-PA : 133 cases (28.9%)
F-PA : 100 cases (21.7%)
F-AP : 92 cases (20.0%)

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Disease: Nodule

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Total Cases: 214

AGE STATISTICS:

Average Age : 52.6 years
Median Age : 54.0 years
Age Range : 13 - 93 years
Std Deviation : 18.5 years

AGE DISTRIBUTION:

Pediatric (<18) : 3 cases (1.4%)
Adult (18-65) : 150 cases (70.1%)
Elderly (>65) : 61 cases (28.5%)

GENDER DISTRIBUTION:

M : 116 cases (54.2%)
F : 98 cases (45.8%)

VIEW POSITION DISTRIBUTION:

PA (Posterior) : 146 cases (68.2%)
AP (Anterior) : 68 cases (31.8%)

IMAGE QUALITY METRICS:

Brightness:

Average : 131.58
Range : 82.62 – 182.30
Std Deviation : 25.46
Low (<100) : 18 cases (8.4%)
Medium (100–180): 195 cases (91.1%)
High (>180) : 1 cases (0.5%)

Contrast (Std Dev of Pixels):

Average : 58.76
Range : 30.58 – 83.71

Edge Density (Feature Detection):

Average : 0.0086
Range : 0.0009 – 0.0347

Entropy (Information Content):

Average : 7.40
Range : 6.26 – 7.82

Lung Area Ratio:

Average : 0.6146
Range : 0.4004 – 0.8800

Sharpness (Laplacian Variance):

Average : 102.08
Range : 15.16 – 298.87
Potentially Blurry: 117 cases (54.7%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 214 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : +0.020
Age vs Contrast : +0.088
Age vs Edge Density : +0.022

COMMON COMBINATIONS (Gender + View):

F-PA : 80 cases (37.4%)
M-PA : 66 cases (30.8%)
M-AP : 50 cases (23.4%)
F-AP : 18 cases (8.4%)

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Disease: Consolidation

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Total Cases: 205

AGE STATISTICS:

Average Age : 48.4 years
Median Age : 50.0 years
Age Range : 13 – 93 years

Std Deviation : 16.6 years

AGE DISTRIBUTION:

Pediatric (<18)	:	8 cases (3.9%)
Adult (18-65)	:	170 cases (82.9%)
Elderly (>65)	:	27 cases (13.2%)

GENDER DISTRIBUTION:

M	:	109 cases (53.2%)
F	:	96 cases (46.8%)

VIEW POSITION DISTRIBUTION:

AP (Anterior)	:	132 cases (64.4%)
PA (Posterior)	:	73 cases (35.6%)

IMAGE QUALITY METRICS:

Brightness:

Average	:	123.70
Range	:	85.15 – 177.68
Std Deviation	:	21.06
Low (<100)	:	19 cases (9.3%)
Medium (100-180)	:	186 cases (90.7%)
High (>180)	:	0 cases (0.0%)

Contrast (Std Dev of Pixels):

Average	:	56.87
Range	:	35.05 – 77.03

Edge Density (Feature Detection):

Average	:	0.0088
Range	:	0.0026 – 0.0357

Entropy (Information Content):

Average	:	7.34
Range	:	6.26 – 7.83

Lung Area Ratio:

Average	:	0.6311
Range	:	0.3676 – 0.9023

Sharpness (Laplacian Variance):

Average	:	119.16
Range	:	19.45 – 295.85
Potentially Blurry:	:	84 cases (41.0%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024	:	205 cases (100.0%)
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CORRELATION ANALYSIS:

Age vs Brightness	:	+0.178
Age vs Contrast	:	-0.115
Age vs Edge Density	:	+0.014

COMMON COMBINATIONS (Gender + View):

M-AP	:	68 cases (33.2%)
F-AP	:	64 cases (31.2%)
M-PA	:	41 cases (20.0%)
F-PA	:	32 cases (15.6%)

Disease: Pneumothorax

Total Cases: 199

AGE STATISTICS:

Average Age	:	45.8 years
Median Age	:	43.0 years
Age Range	:	14 – 85 years
Std Deviation	:	18.9 years

AGE DISTRIBUTION:

Pediatric (<18)	:	2 cases (1.0%)
Adult (18–65)	:	160 cases (80.4%)
Elderly (>65)	:	37 cases (18.6%)

GENDER DISTRIBUTION:

M	:	152 cases (76.4%)
F	:	47 cases (23.6%)

VIEW POSITION DISTRIBUTION:

PA (Posterior)	:	120 cases (60.3%)
AP (Anterior)	:	79 cases (39.7%)

IMAGE QUALITY METRICS:

Brightness:

Average	:	126.36
Range	:	79.79 – 189.09
Std Deviation	:	24.25
Low (<100)	:	32 cases (16.1%)
Medium (100–180)	:	166 cases (83.4%)
High (>180)	:	1 cases (0.5%)

Contrast (Std Dev of Pixels):

Average	:	59.61
Range	:	36.01 – 77.84

Edge Density (Feature Detection):

Average	:	0.0107
Range	:	0.0004 – 0.0297

Entropy (Information Content):

Average	:	7.39
Range	:	6.21 – 7.85

Lung Area Ratio:

Average : 0.6270
Range : 0.4015 - 0.9023

Sharpness (Laplacian Variance):

Average : 106.36
Range : 11.36 - 323.83
Potentially Blurry: 101 cases (50.8%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 199 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : -0.090
Age vs Contrast : -0.005
Age vs Edge Density : +0.134

COMMON COMBINATIONS (Gender + View):

M-PA : 88 cases (44.2%)
M-AP : 64 cases (32.2%)
F-PA : 32 cases (16.1%)
F-AP : 15 cases (7.5%)

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Disease: Cardiomegaly

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Total Cases: 196

AGE STATISTICS:

Average Age : 58.8 years
Median Age : 58.0 years
Age Range : 13 - 87 years
Std Deviation : 13.0 years

AGE DISTRIBUTION:

Pediatric (<18) : 1 cases (0.5%)
Adult (18-65) : 140 cases (71.4%)
Elderly (>65) : 55 cases (28.1%)

GENDER DISTRIBUTION:

F : 136 cases (69.4%)
M : 60 cases (30.6%)

VIEW POSITION DISTRIBUTION:

PA (Posterior) : 123 cases (62.8%)
AP (Anterior) : 73 cases (37.2%)

IMAGE QUALITY METRICS:

Brightness:

Average : 131.52
Range : 86.14 - 178.84
Std Deviation : 25.01
Low (<100) : 17 cases (8.7%)
Medium (100-180): 179 cases (91.3%)
High (>180) : 0 cases (0.0%)

Contrast (Std Dev of Pixels):

Average : 59.94
Range : 27.66 - 78.92

Edge Density (Feature Detection):

Average : 0.0087
Range : 0.0012 - 0.0222

Entropy (Information Content):

Average : 7.41
Range : 6.43 - 7.87

Lung Area Ratio:

Average : 0.6170
Range : 0.3968 - 0.9024

Sharpness (Laplacian Variance):

Average : 98.49
Range : 15.33 - 347.98
Potentially Blurry: 115 cases (58.7%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 196 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : +0.072
Age vs Contrast : -0.032
Age vs Edge Density : +0.008

COMMON COMBINATIONS (Gender + View):

F-PA : 80 cases (40.8%)
F-AP : 56 cases (28.6%)
M-PA : 43 cases (21.9%)
M-AP : 17 cases (8.7%)

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Disease: Fibrosis

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Total Cases: 172

AGE STATISTICS:

Average Age : 54.3 years
Median Age : 54.0 years
Age Range : 22 - 93 years

Std Deviation : 16.0 years

AGE DISTRIBUTION:

Pediatric (<18)	:	0 cases (0.0%)
Adult (18–65)	:	127 cases (73.8%)
Elderly (>65)	:	45 cases (26.2%)

GENDER DISTRIBUTION:

M	:	96 cases (55.8%)
F	:	76 cases (44.2%)

VIEW POSITION DISTRIBUTION:

PA (Posterior)	:	144 cases (83.7%)
AP (Anterior)	:	28 cases (16.3%)

IMAGE QUALITY METRICS:

Brightness:

Average	:	132.30
Range	:	80.84 – 184.47
Std Deviation	:	25.36
Low (<100)	:	16 cases (9.3%)
Medium (100–180)	:	155 cases (90.1%)
High (>180)	:	1 cases (0.6%)

Contrast (Std Dev of Pixels):

Average	:	62.31
Range	:	36.90 – 84.42

Edge Density (Feature Detection):

Average	:	0.0088
Range	:	0.0009 – 0.0246

Entropy (Information Content):

Average	:	7.48
Range	:	6.28 – 7.83

Lung Area Ratio:

Average	:	0.5870
Range	:	0.3802 – 0.8978

Sharpness (Laplacian Variance):

Average	:	94.21
Range	:	14.95 – 296.96
Potentially Blurry:		113 cases (65.7%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024	:	172 cases (100.0%)
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CORRELATION ANALYSIS:

Age vs Brightness	:	+0.012
Age vs Contrast	:	+0.056
Age vs Edge Density	:	-0.074

COMMON COMBINATIONS (Gender + View):

M-PA	:	75 cases (43.6%)
F-PA	:	69 cases (40.1%)
M-AP	:	21 cases (12.2%)
F-AP	:	7 cases (4.1%)

Disease: Pleural_Thickening

Total Cases: 165

AGE STATISTICS:

Average Age	:	52.8 years
Median Age	:	56.0 years
Age Range	:	13 – 91 years
Std Deviation	:	18.5 years

AGE DISTRIBUTION:

Pediatric (<18)	:	4 cases (2.4%)
Adult (18–65)	:	120 cases (72.7%)
Elderly (>65)	:	41 cases (24.8%)

GENDER DISTRIBUTION:

M	:	111 cases (67.3%)
F	:	54 cases (32.7%)

VIEW POSITION DISTRIBUTION:

PA (Posterior)	:	123 cases (74.5%)
AP (Anterior)	:	42 cases (25.5%)

IMAGE QUALITY METRICS:

Brightness:

Average	:	130.31
Range	:	82.62 – 189.09
Std Deviation	:	24.58
Low (<100)	:	10 cases (6.1%)
Medium (100–180)	:	153 cases (92.7%)
High (>180)	:	2 cases (1.2%)

Contrast (Std Dev of Pixels):

Average	:	59.57
Range	:	21.96 – 81.30

Edge Density (Feature Detection):

Average	:	0.0092
Range	:	0.0014 – 0.0357

Entropy (Information Content):

Average	:	7.42
Range	:	6.04 – 7.83

Lung Area Ratio:

Average : 0.6008
Range : 0.3472 - 0.8675

Sharpness (Laplacian Variance):

Average : 96.18
Range : 11.36 - 302.14
Potentially Blurry: 101 cases (61.2%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 165 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : -0.084
Age vs Contrast : +0.082
Age vs Edge Density : +0.107

COMMON COMBINATIONS (Gender + View):

M-PA : 79 cases (47.9%)
F-PA : 44 cases (26.7%)
M-AP : 32 cases (19.4%)
F-AP : 10 cases (6.1%)

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Disease: Mass

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Total Cases: 161

AGE STATISTICS:

Average Age : 56.2 years
Median Age : 57.0 years
Age Range : 13 - 91 years
Std Deviation : 17.4 years

AGE DISTRIBUTION:

Pediatric (<18) : 2 cases (1.2%)
Adult (18-65) : 113 cases (70.2%)
Elderly (>65) : 46 cases (28.6%)

GENDER DISTRIBUTION:

M : 104 cases (64.6%)
F : 57 cases (35.4%)

VIEW POSITION DISTRIBUTION:

PA (Posterior) : 105 cases (65.2%)
AP (Anterior) : 56 cases (34.8%)

IMAGE QUALITY METRICS:

Brightness:

Average : 133.01
Range : 93.52 - 187.04
Std Deviation : 24.01
Low (<100) : 5 cases (3.1%)
Medium (100-180): 155 cases (96.3%)
High (>180) : 1 cases (0.6%)

Contrast (Std Dev of Pixels):

Average : 59.91
Range : 31.55 - 80.61

Edge Density (Feature Detection):

Average : 0.0090
Range : 0.0014 - 0.0357

Entropy (Information Content):

Average : 7.46
Range : 6.19 - 7.82

Lung Area Ratio:

Average : 0.6161
Range : 0.3472 - 0.8800

Sharpness (Laplacian Variance):

Average : 114.91
Range : 14.74 - 333.66
Potentially Blurry: 86 cases (53.4%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 161 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : -0.081
Age vs Contrast : +0.055
Age vs Edge Density : -0.014

COMMON COMBINATIONS (Gender + View):

M-PA : 65 cases (40.4%)
F-PA : 40 cases (24.8%)
M-AP : 39 cases (24.2%)
F-AP : 17 cases (10.6%)

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Disease: Emphysema

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Total Cases: 125

AGE STATISTICS:

Average Age : 56.0 years
Median Age : 57.0 years
Age Range : 18 - 87 years

Std Deviation : 15.3 years

AGE DISTRIBUTION:

Pediatric (<18)	:	0 cases (0.0%)
Adult (18–65)	:	93 cases (74.4%)
Elderly (>65)	:	32 cases (25.6%)

GENDER DISTRIBUTION:

M	:	76 cases (60.8%)
F	:	49 cases (39.2%)

VIEW POSITION DISTRIBUTION:

PA (Posterior)	:	75 cases (60.0%)
AP (Anterior)	:	50 cases (40.0%)

IMAGE QUALITY METRICS:

Brightness:

Average	:	131.62
Range	:	82.82 – 189.35
Std Deviation	:	24.37
Low (<100)	:	7 cases (5.6%)
Medium (100–180)	:	116 cases (92.8%)
High (>180)	:	2 cases (1.6%)

Contrast (Std Dev of Pixels):

Average	:	56.89
Range	:	28.91 – 76.05

Edge Density (Feature Detection):

Average	:	0.0090
Range	:	0.0021 – 0.0265

Entropy (Information Content):

Average	:	7.40
Range	:	5.84 – 7.85

Lung Area Ratio:

Average	:	0.6290
Range	:	0.4259 – 0.8978

Sharpness (Laplacian Variance):

Average	:	113.10
Range	:	16.43 – 263.27
Potentially Blurry:		64 cases (51.2%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024	:	125 cases (100.0%)
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CORRELATION ANALYSIS:

Age vs Brightness	:	+0.172
Age vs Contrast	:	+0.054
Age vs Edge Density	:	+0.074

COMMON COMBINATIONS (Gender + View):

M-PA	:	40 cases (32.0%)
M-AP	:	36 cases (28.8%)
F-PA	:	35 cases (28.0%)
F-AP	:	14 cases (11.2%)

Disease: Edema

Total Cases: 90

AGE STATISTICS:

Average Age	:	47.8 years
Median Age	:	55.0 years
Age Range	:	13 – 77 years
Std Deviation	:	13.6 years

AGE DISTRIBUTION:

Pediatric (<18)	:	1 cases (1.1%)
Adult (18–65)	:	84 cases (93.3%)
Elderly (>65)	:	5 cases (5.6%)

GENDER DISTRIBUTION:

F	:	56 cases (62.2%)
M	:	34 cases (37.8%)

VIEW POSITION DISTRIBUTION:

AP (Anterior)	:	79 cases (87.8%)
PA (Posterior)	:	11 cases (12.2%)

IMAGE QUALITY METRICS:

Brightness:

Average	:	122.50
Range	:	90.07 – 168.43
Std Deviation	:	18.46
Low (<100)	:	2 cases (2.2%)
Medium (100–180)	:	88 cases (97.8%)
High (>180)	:	0 cases (0.0%)

Contrast (Std Dev of Pixels):

Average	:	56.83
Range	:	32.43 – 81.15

Edge Density (Feature Detection):

Average	:	0.0075
Range	:	0.0022 – 0.0176

Entropy (Information Content):

Average	:	7.41
Range	:	6.13 – 7.75

Lung Area Ratio:

Average : 0.5915
Range : 0.3538 - 0.8818

Sharpness (Laplacian Variance):

Average : 136.19
Range : 12.94 - 261.65
Potentially Blurry: 25 cases (27.8%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 90 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : +0.206
Age vs Contrast : +0.131
Age vs Edge Density : +0.161

COMMON COMBINATIONS (Gender + View):

F-AP : 47 cases (52.2%)
M-AP : 32 cases (35.6%)
F-PA : 9 cases (10.0%)
M-PA : 2 cases (2.2%)

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Disease: Pneumonia

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Total Cases: 65

AGE STATISTICS:

Average Age : 46.6 years
Median Age : 44.0 years
Age Range : 13 - 83 years
Std Deviation : 17.6 years

AGE DISTRIBUTION:

Pediatric (<18) : 2 cases (3.1%)
Adult (18-65) : 53 cases (81.5%)
Elderly (>65) : 10 cases (15.4%)

GENDER DISTRIBUTION:

M : 39 cases (60.0%)
F : 26 cases (40.0%)

VIEW POSITION DISTRIBUTION:

AP (Anterior) : 37 cases (56.9%)
PA (Posterior) : 28 cases (43.1%)

IMAGE QUALITY METRICS:

Brightness:

Average : 129.00
Range : 88.74 - 169.64
Std Deviation : 22.54
Low (<100) : 3 cases (4.6%)
Medium (100-180): 62 cases (95.4%)
High (>180) : 0 cases (0.0%)

Contrast (Std Dev of Pixels):

Average : 57.67
Range : 21.96 - 74.55

Edge Density (Feature Detection):

Average : 0.0084
Range : 0.0019 - 0.0246

Entropy (Information Content):

Average : 7.38
Range : 6.04 - 7.77

Lung Area Ratio:

Average : 0.6296
Range : 0.4219 - 0.8571

Sharpness (Laplacian Variance):

Average : 115.42
Range : 19.07 - 316.97
Potentially Blurry: 29 cases (44.6%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024 : 65 cases (100.0%)

CORRELATION ANALYSIS:

Age vs Brightness : +0.217
Age vs Contrast : -0.042
Age vs Edge Density : +0.112

COMMON COMBINATIONS (Gender + View):

M-AP : 25 cases (38.5%)
F-PA : 14 cases (21.5%)
M-PA : 14 cases (21.5%)
F-AP : 12 cases (18.5%)

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Disease: Hernia

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Total Cases: 27

AGE STATISTICS:

Average Age : 69.0 years
Median Age : 75.0 years
Age Range : 31 - 87 years

Std Deviation : 15.2 years

AGE DISTRIBUTION:

Pediatric (<18)	:	0 cases (0.0%)
Adult (18–65)	:	9 cases (33.3%)
Elderly (>65)	:	18 cases (66.7%)

GENDER DISTRIBUTION:

F	:	25 cases (92.6%)
M	:	2 cases (7.4%)

VIEW POSITION DISTRIBUTION:

PA (Posterior)	:	27 cases (100.0%)
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IMAGE QUALITY METRICS:

Brightness:

Average	:	131.93
Range	:	92.44 – 173.44
Std Deviation	:	22.99
Low (<100)	:	2 cases (7.4%)
Medium (100–180)	:	25 cases (92.6%)
High (>180)	:	0 cases (0.0%)

Contrast (Std Dev of Pixels):

Average	:	68.07
Range	:	37.78 – 80.47

Edge Density (Feature Detection):

Average	:	0.0085
Range	:	0.0029 – 0.0156

Entropy (Information Content):

Average	:	7.53
Range	:	6.66 – 7.85

Lung Area Ratio:

Average	:	0.5770
Range	:	0.4002 – 0.7000

Sharpness (Laplacian Variance):

Average	:	101.96
Range	:	21.01 – 221.98
Potentially Blurry:	:	16 cases (59.3%)

IMAGE RESOLUTION DISTRIBUTION:

1024x1024	:	27 cases (100.0%)
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CORRELATION ANALYSIS:

Age vs Brightness	:	+0.080
Age vs Contrast	:	+0.444
Age vs Edge Density	:	+0.372

COMMON COMBINATIONS (Gender + View):

F-PA : 25 cases (92.6%)
M-PA : 2 cases (7.4%)

END OF ANALYSIS
