**Supplemental Material: Conversion of % Lactulose, % Mannitol, and L:M Results from BRF children to Z-scores by Age and sex**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **% Mannitol Recovery** | | | | | | | | |
|  | **λ** | **mean** | **sd** | **-2 SD** | **-1 SD** | **Median** | **+1 SD** | **+1.28 SD** |
| **3-mo boys** | 0.377 | 1.14 | 1.51 | 0.038 | 0.671 | 2.581 | 6.280 | 7.697 |
| **6-mo boys** | 0.345 | 1.04 | 1.25 | 0.131 | 0.804 | 2.432 | 5.407 | 6.533 |
| **9-mo boys** | 0.083 | 0.63 | 1.11 | 0.182 | 0.613 | 1.848 | 5.080 | 6.645 |
| **15-mo boys** | 0.310 | 0.42 | 0.98 | 0.123 | 0.541 | 1.484 | 3.198 | 3.852 |
|  |  |  |  |  |  |  |  |  |
| **3-mo girls** | 0.372 | 0.22 | 1.39 | 0.001 | 0.215 | 1.235 | 3.531 | 4.458 |
| **6-mo girls** | 0.339 | 0.13 | 1.21 | 0.012 | 0.261 | 1.136 | 3.018 | 3.777 |
| **9-mo girls** | 0.200 | 0.07 | 1.27 | 0.033 | 0.254 | 1.072 | 3.278 | 4.306 |
| **15-mo girls** | 0.170 | 0.06 | 1.10 | 0.070 | 0.318 | 1.062 | 2.883 | 3.708 |
| **% Lactulose Recovery** | | | | | | | |  |  |  |  |  |  |  | **% Lactulose Excretion** |
|  | **λ** | **mean** | **sd** | **-2 SD** | **-1 SD** | **Median** | **+1 SD** | **+1.28 SD** |
| **3-mo boys** | -0.142 | -1.88 | 0.92 | 0.050 | 0.095 | 0.189 | 0.407 | 0.512 |
| **6-mo boys** | 0.048 | -1.82 | 0.74 | 0.028 | 0.065 | 0.149 | 0.330 | 0.410 |
| **9-mo boys** | 0.078 | -2.03 | 0.82 | 0.013 | 0.040 | 0.110 | 0.281 | 0.361 |
| **15-mo boys** | -0.098 | -2.52 | 0.67 | 0.038 | 0.062 | 0.105 | 0.183 | 0.214 |
|  |  |  |  |  |  |  |  |  |
| **3-mo girls** | 0.474 | -1.26 | 0.35 | 0.004 | 0.048 | 0.147 | 0.304 | 0.359 |
| **6-mo girls** | 0.317 | -1.82 | 0.44 | 0.002 | 0.019 | 0.066 | 0.163 | 0.201 |
| **9-mo girls** | 0.114 | -2.30 | 0.73 | 0.007 | 0.024 | 0.069 | 0.177 | 0.227 |
| **15-mo girls** | -0.015 | -4.09 | 1.48 | 0.001 | 0.005 | 0.019 | 0.078 | 0.115 |
| **L:M Ratio** | | | | | | | |  |  |  |  |  |  |  | **L:M Ratio** |
|  | **λ** | **mean** | **sd** | **-2 SD** | **-1 SD** | **Median** | **+1 SD** | **+1.28 SD** |
| **3-mo boys** | -0.515 | -5.18 | 2.98 | 0.025 | 0.041 | 0.080 | 0.230 | 0.356 |
| **6-mo boys** | -0.272 | -3.81 | 1.50 | 0.021 | 0.037 | 0.073 | 0.167 | 0.218 |
| **9-mo** | -0.253 | -4.23 | 1.42 | 0.017 | 0.030 | 0.056 | 0.120 | 0.152 |
| **15-mo** | -0.288 | -4.00 | 1.50 | 0.021 | 0.037 | 0.070 | 0.152 | 0.196 |
|  |  |  |  |  |  |  |  |  |
| **3-mo** | -0.271 | -2.93 | 2.00 | 0.020 | 0.044 | 0.116 | 0.436 | 0.703 |
| **6-mo** | -0.434 | -4.93 | 2.76 | 0.019 | 0.034 | 0.072 | 0.217 | 0.335 |
| **9-mo** | -0.262 | -4.02 | 1.95 | 0.014 | 0.027 | 0.064 | 0.191 | 0.277 |
| **15-mo** | -0.146 | -3.36 | 1.27 | 0.14 | 0.029 | 0.065 | 0.161 | 0.213 |