**Supplemental Digital Content**

**Supplemental Text**

Briefly, (i) concentrated stocks of 16S and ITS primer13,26 products were prepared by PCR amplification and ethanol precipitation, and pooled together at equimolar concentrations. Serial 10-fold dilutions of the pooled standard were analyzed with the samples; (ii) the isolated DNA and the standard serial dilutions were preamplified using pooled 16S and ITS primers. Under the following conditions: hot start at 95°C for 5 min, 14 cycles of 95°C for 15 sec, 59°C for 45 sec, and 60°C for 45 sec, and a holding stage at 60°C for 10 min. (iii) the resultant DNA was diluted 5-fold and added to prepared master mix containing SsoFast™ EvaGreen® Supermix with Low Rox™ (Bio-Rad, USA) (iv) assays and samples were loaded onto a GE FLEXsix IFC (Fluidigm) and eventually subjected to the following conditions: thermal mix (1 cycle at 25°C for 360 sec, 1 cycle at 70°C for 360 sec), hot start (95°C for 300 sec) and cycling (40 cycles of (i) 95°C for 15 sec and (ii) 60°C for 30 sec) stages. Amplification data was analyzed using Fluidigm® Real-Time PCR software (Fluidigm).

**Supplemental Figure**





 

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| **Supplemental Table** |
|  Correlates of plasma 16S and ITS DNA in 343 children hospitalised with severe acute malnutrition1 |
|  | **16S DNA 2** |  | **ITS DNA  3** |
|  | **expβ** | **95% CI** | **p** |  | **expβ** | **95% CI** | **p** |
|  Age, months  | 0.98 | 0.96; 1.01 | 0.38 |  | 0.99 | 0.96; 1.02 | 0.68 |
|  Sex, (female) | 1.05 | 0.67; 1.67 | 0.82 |  | 1.29 | 0.81; 2.06 | 0.28 |
|  Currently breastfeeding  | 1.12 | 0.56; 2.23 | 0.74 |  | 1.27 | 0.62; 2.56 | 0.50 |
| **Anthropometric data** |  |  |  |  |  |  |  |
|  Mid-upper arm circumference, cm | 1.11 | 0.94; 1.30 | 0.22 |  | 0.90 | 0.76; 1.06 | 0.22 |
|  Weight-for-height z | 1.02 | 0.87; 1.20 | 0.74 |  | 0.88 | 0.75; 1.04 | 0.13 |
|  Height-for-age z  | 0.93 | 0.78; 1.09 | 0.39 |  | 0.87 | 0.73; 1.04 | 0.13 |
| **Clinical data**  |  |  |  |  |  |  |  |
|  Fever | 1.15 | 0.73; 1.83 | 0.53 |  | 1.14 | 0.72; 1.82 | 0.57 |
|  Cough  | 1.11 | 0.68; 1.79 | 0.68 |  | 0.78 | 0.47; 1.27 | 0.31 |
|  Vomit  | 0.63 | 0.39; 1.00 | 0.05 |  | 0.83 | 0.52; 1.35 | 0.47 |
|  Diarrhoea | 0.64 | 0.40; 1.02 | 0.06 |  | 0.66 | 0.42; 1.07 | 0.09 |
|  Oral thrash | 0.91 | 0.51; 1.62 | 0.75 |  | 1.18 | 0.65; 2.13 | 0.57 |
|  Dermatosis | 0.56 | 0.23; 1.39 | 0.22 |  | 0.81 | 0.32; 2.01 | 0.65 |
|  Pneumonia  | 1.51 | 0.82; 2.78 | 0.18 |  | 1.52 | 0.83; 2.81 | 0.17 |
|  Oedema |  |  |  |  |  |  |  |
|  Grade 1 | 1.19 | 0.45; 3.14 | 0.71 |  | 0.61 | 0.22; 1.61 | 0.32 |
|  Grade 2 | 1.26 | 0.65; 2.42 | 0.49 |  | 0.62 | 0.31; 1.19 | 0.15 |
|  Grade 3 | 1.30 | 0.75; 2.25 | 0.34 |  | 0.72 | 0.41; 1.26 | 0.25 |
|  Severity of illness, VAS 2 | 0.91 | 0.80; 1.02 | 0.11 |  | 0.81 | 0.71; 0.92 | **0.001** |
|  Suspected sepsis  | 0.72 | 0.50; 1.03 | 0.07 |  | 0.92 | 0.64; 1.32 | 0.67 |
| **Laboratory data** |  |  |  |  |  |  |  |
|  HIV, serology  |  |  |  |  |  |  |  |
|  Positive  | 0.81 | 0.38; 1.69 | 0.56 |  | 0.92 | 0.44; 1.91 | 0.83 |
|  Exposed, negative  | 0.83 | 0.45; 1.55 | 0.57 |  | 0.84 | 0.45; 1.55 | 0.58 |
|  C-reactive protein, mg/l |  |  |  |  |  |  |  |
|  >10 | 1.51 | 0.92; 2.46 | 0.10 |  | 1.71 | 1.04; 2.79 | **0.03** |
|  Cell count, X 109/l |  |  |  |  |  |  |  |
|  Neutrophil  | 0.98 | 0.93; 1.04 | 0.61 |  | 1.02 | 0.96; 1.07 | 0.52 |
|  Lymphocyte | 1.05 | 0.96; 1.14 | 0.29 |  | 1.04 | 0.95; 1.14 | 0.36 |
|  Monocyte  | 0.98 | 0.77; 1.24 | 0.87 |  | 1.06 | 0.84; 1.34 | 0.58 |
|  Haemoglobin, g/dl | 0.94 | 0.84; 1.06 | 0.36 |  | 0.97 | 0.87; 1.09 | 0.64 |
| 1Data are back transformed exponentiated terms (expβ) adjusted for age and sex, 95% confidence interval (CI) and p values. 2 visual analogue scale.  |