

**Table S1: Linearity of the analytical method**

Antibiotic	Linear regression $y = ax + b$ (n=3)		
	a (mean +/- SD)	b (mean +/- SD)	$r^2$
AMOX	1.00005 +/- 0.0156	-0.05477 +/- 0.0942	0.99985
SMX	1.01125 +/- 0.0034	-0.1644 +/- 0.0596	0.99999
TMP	1.0168 +/- 0.0112	-0.0308 +/- 0.0214	0.99987

AMOX: amoxicillin, SMX: sulfamethoxazole, TMP: trimethoprim, (a= slop. b= intercept)

**Table S2: Retention times of analytes of interest and potential interfering compounds**

<b>Drug</b>	<b>Retention time (min)</b>	<b>Drug</b>	<b>Retention time (min)</b>
Amoxicillin	3.7	Ceftazidime	4.3
Sulfamethoxazole	11.1	Piperacillin	7.9
Trimethoprim	6.8	Cloxacillin	8.7
Sulfadiazine	4.1	Cefazolin	6.4
Cefotaxime	5.5	Linezolid	9.9
Ceftriaxone	5.3	Dithiotreitol	4.3

**Table S3: Expression of antibiotics amount in sputum**

<p>The amount of antibiotics in bronchial expectoration samples was expressed according to volume and mass of sputum. Weight and volume of each sample were determined beforehand analysis. Concentrations were calculated according the following formulae:</p>
$C_{ws} = C_a \times (V_s + V_d) / W_s \quad \text{or} \quad C_{vs} = C_a \times (V_s + V_d) / V_s \quad \text{with}$
$C_{ws}$ = “mass” concentration of antibiotic in sputum in $\mu\text{g/g}$
$C_{vs}$ = “volumetric” concentration of antibiotic in sputum in $\mu\text{g/mL}$
$C_a$ = concentration measured with the assay in $\mu\text{g/mL}$
$V_s$ = volume of the sputum sample (mL)
$V_d$ = volume of diluent added (mL)
$W_s$ = weight of the sputum sample (g)