## **Supplementary Files**

**Supplementary Table 1:** Univariable analysis of factors associated with hospital length of stay, using a conventional Cox regression model to obtain a cause-specific hazard ratio, and the Fine and Gray competing-risks method to obtain a subdistribution hazard ratio, adjusting for health facility structures.

	Whole Sample N=2,332	Cause-specific Haza	rd	Subdistribution-Hazard (Association With Cumulative Incidence of	
	1, 2,002	(Rate of Discharge)		discharge)	
	n(%)		P	, , , , , , , , , , , , , , , , , , ,	P
Factors		CSHR(CI)	value	SDHR(CI)	value
General information					
Age category					
(more 5 years)	1,525(65.7)	1.048(0.968; 1.135)	0.244	1.018(0.948; 1.094)	0.625
Age taken	2,323(99.6)	0.772(0.512; 1.163)	0.213	0.756(0.507; 1.126)	0.168
Sex (male)	1,211(52.1)	0.980(0.914; 1.051)	0.564	0.952(0.886; 1.022)	0.177
Ward (paediatric)	1,179(50.6)	0.992(0.918; 1.073)	0.843	1.039(0.967; 1.116)	0.302
Assessment on admission					
Weight	1,146(49.1)	1.023(0.925; 1.131)	0.657	1.063(0.967; 1.169)	0.206
Pulse	1,618(69.4)	0.845(0.752; 0.950)	0.005	0.869(0.777; 0.972)	0.014
Temperature	1,900(81.5)	0.816(0.722; 0.921)	0.001	0.905(0.796; 1.030)	0.130
Respiratory rate	1,232(52,9)	0.806(0.713; 0.911)	0.001	0.848(0.759; 0.946)	0.003
Blood pressure	1,046(44.9)	0.951(0.875; 1.034)	0.234	0.936(0.865; 1.013)	0.102
Fever complaint	2,030(87.1)	0.955(0.817; 1.117)	0.562	0.995(0.858; 1.154)	0.948
Monitoring					
during					
hospitalization					
Temperature	1,953(83.7)	0.791(0.687; 0.910)	0.001	0.862(0.742; 1.002)	0.053
Respiratory rate	1,349(57.8)	0.828(0.727; 0.943)	0.005	0.874(0.775; 0.985)	0.027
Blood pressure	1,089(46.7)	0.958(0.885; 1.037)	0.280	0.935(0.867; 1.007)	0.078
Pulse rate	1,696(72.7)	0.860(0.759; 0.973)	0.017	0.886(0.782; 1.004)	0.058
Oxygen	469(20.1)	0.820(0.718; 0.938)	0.004	0.837(0.733; 0.955)	0.008

saturation					
Laboratory					
testing					
Malaria test done					
on admission	2,155(92.4)	1.046(0.880; 1.243)	0.607	1.120(0.926; 1.354)	0.242
Hb/ HCT done	1,551(66.5)	0.708(0.650; 0.771)	< 0.001	0.738(0.678; 0.803)	<0.001
Glucose/RBS					
test done	582(25.0)	0.769(0.695; 0.850)	<0.001	0.733(0.673; 0.799)	<0.001
Clinical features					
At least one					
feature of severe					
malaria <sup>a</sup>	762(32.7)	0.747(0.679;0.821)	<0.001	0.696(0.626;0.774)	<0.001
Diagnosis					
HW's severe					
malaria diagnosis					
on admission	571(24.5)	1.063(0.953;1.186)	0.267	1.054(0.937;1.185)	0.380
Confirmed					
severe malaria b	592(25.4)	1.219(1.090;1.362)	0.001	1.214(1.082;1.362)	0.001
Treatment					
during the					
hospitalization					
Artesunate					
injection					
prescribed	1,186(50.9)	1.365(1.206; 1.545)	<0.001	1.339(1.184; 1.514)	<0.001

The bold values are those that are significant results (P  $\leq$ 0.05)

<sup>&</sup>lt;sup>a</sup> Documentation of at least one of the clinical and laboratory features as specified and defined in Table 1.

<sup>&</sup>lt;sup>b</sup> Defined as positive malaria test on admission and presence of severity criteria (either documentation of any clinical features of severe malaria or severe malaria diagnosis made by clinician); Clinical severity criteria were complemented with health workers diagnosis of severe malaria to protect correctness of severity classification from documentation biases.