

Tables

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	All Severe pneumonia admissions (N=4184)	Severe Pneumonia admissions among KHDSS Residents (N=2461)	Admission without severe pneumonia among KHDSS Residents (N=5270)	Univariate P-value
Demographic characteristics ^a				
Age in months: median (IQR)	8.9 (4-19)	9.3 (3.9-20.4)	19.5 (11-28.5)	<0.001
Female	1846 (44)	1064 (43)	2297 (44)	0.54
Reported premature/LBW	166 (4.0)	74 (3.0)	108 (2.1)	0.02
Hospitalization time (days): median (IQR)	4 (2-6)	3 (2-5)	3 (2-6)	0.31
Previous hospital admission	109 (2.6)	69 (2.8)	128 (2.4)	0.28
Clinical characteristics at admission				
Hypoxia (SaO ₂ <90%)	578 (14)	304 (12)	73 (1.4)	<0.001
Capillary refill >2 seconds	202 (4.8)	89 (3.6)	116 (2.2)	<0.001
Impaired consciousness ^b	329 (7.9)	161 (6.5)	234 (4.4)	<0.001
Wheezing	671 (16)	432 (18)	27 (0.5)	<0.001
Cough for >14 days	185 (4.8)	68 (3.0)	117 (6.9)	<0.001
Jaundice	34 (0.8)	15 (0.6)	73 (1.4)	0.01
Severe anaemia	114 (3.4)	59 (3.0)	174 (3.3)	0.11
Axillary temperature <36°C	112 (2.7)	71 (2.9)	172 (3.3)	
Axillary temperature 36-39°C	3355 (80)	1988 (81)	4159 (79)	0.46
Axillary temperature >39°C	717 (17)	402 (16)	939 (18)	
HIV antibody test positive	267 (6.4)	110 (4.5)	145 (2.8)	
HIV test not preformed	307 (7.3)	180 (7.3)	634 (12)	<0.001
RSV test positive	805 (19)	485 (20)	9 (0.2)	
RSV test not preformed	1109 (27)	723 (29)	5146 (98)	<0.001
Malaria slide positive	401 (9.6)	240 (9.8)	1203 (23)	<0.001
Bacteraemia	189 (4.5)	113 (4.6)	308 (5.8)	0.001
Nutritional characteristics at admission				
WHZ Mean (sd) ^c	-1.1 (1.8)	-0.9 (1.7)	-1.1 (1.5)	<0.001
HAZ Mean (sd) ^d	-1.6 (1.7)	-1.5 (1.6)	-1.7 (1.6)	<0.001
WAZ Mean (sd) ^e	-1.9 (1.7)	-1.7 (1.6)	-1.7 (1.4)	0.12
HCAZ Mean (sd) ^f	-0.5 (1.7)	-0.4 (1.6)	-0.5 (1.5)	<0.001
MUAC cm Median (IQR) ^g	13.0 (11.8-14.0)	13.0 (12.0-14.2)	14.0 (12.6-14.9)	<0.001
Kwashiorkor (nutritional oedema)	68 (1.6)	25 (1.0)	234 (4.5)	<0.001
Outcome				
Inpatient death	364 (8.7)	137 (5.6)	126 (2.4)	<0.001

Table 1: Patient characteristics at admission.

^a data given as N (%) unless otherwise indicated, IQR: interquartile range, LBW: low birth weight (<2500grams), ^b conscious level classified as 'prostrate' or 'unconscious', RSV: Respiratory Syncytial Virus, ^e 115 missing, ^d 378 missing, ^c 454 missing, ^f 168 missing, sd: Standard deviation, ^g 161 missing, WHZ: weight for length/height z-score, HAZ: length/height for age z-score, WAZ: weight for-age z-score, HCAZ: head circumference for age z-score, MUAC: Mid-upper arm circumference, and KHDSS: Kilifi Health and Demographic Surveillance System

(CYO=2,163)	N	Adjusted HR	95% CI	P-value
Demographic characteristics				
≥24 months	401	1.0	Reference	
12-23 months	546	1.02	0.11 to 9.58	0.99
6-11 months	519	5.76	0.82 to 40.5	0.08
<6 months	813	4.78	0.67 to 34.1	0.12
Female	976	0.50	0.26 to 1.10	0.06
Distance from KCH (Km)	2117	1.03	0.99 to 1.07	0.10
Reported premature/LBW	64	0.65	0.15 to 2.80	0.56
Duration of hospitalization (days)	2276	1.08	1.02 to 1.14	0.04
Clinical characteristics at admission				
Hypoxia (SaO ₂ <90%)	247	1.93	0.69 to 5.44	0.21
Capillary refill >2 seconds	48	2.36	0.46 to 12.1	0.30
Impaired consciousness ^a	103	1.09	0.15 to 7.75	0.93
Wheezing	424	0.45	0.09 to 2.36	0.35
Cough for >14 days	55	0.19	0.01 to 5.46	0.34
Jaundice	13	12.5	1.13 to 13.7	0.04
Severe anaemia (Hb <5g/dl)	48	0.76	0.08 to 7.45	0.82
Axillary temperature <36°C	58	0.31	0.03 to 2.78	0.30
Axillary temperature 36 to 39°C	1858	1.0	Reference	
Axillary temperature >39°C	363	1.09	0.39 to 3.04	0.87
HIV antibody test negative	2035	1.0	Reference	
HIV antibody test positive	85	6.49	2.29 to 18.4	<0.001
HIV test not performed	159	0.44	0.06 to 3.55	0.44
RSV test negative	1174	1.0	Reference	
RSV test positive	477	0.33	0.09 to 1.23	0.09
RSV test not performed	628	2.71	1.16 to 6.33	0.02
Malaria slide negative	2073	1.0	Reference	
Malaria slide positive	206	0.52	0.05 to 5.17	0.58
No bacteraemia	2187	1.0	Reference	
Bacteraemia	92	0.82	0.13 to 5.17	0.83
MUAC per cm	2218	0.61	0.50 to 0.76	<0.001
Year of admission				
2007	480	1.0	Reference	
2008	381	0.99	0.32 to 3.07	0.98
2009	392	0.45	0.09 to 2.13	0.31
2010	392	0.71	0.20 to 2.50	0.58
2011	319	1.66	0.52 to 5.25	0.39
2012	315	1.82	0.21 to 15.7	0.58
Model performance				
AIC			526.9	
Raw AUC (95% CI)			0.91 (0.88 to 0.95)	
Bootstrapped AUC (95% CI)			0.92 (0.88 to 0.96)	

Table 2: Multivariable analysis of factors associated with one year post-discharge mortality among KHDSS residents (N=2,279).

CYO: Child years of observation, RSV: Respiratory Syncytial Virus, MUAC: mid-upper arm circumference, LBW: Low birth weight (<2.5kgs), AIC: Akaike information criterion, AUC: area under the receiver operating curve, ^a conscious level classified as 'prostrate' or 'unconscious'