Developing an Antimicrobial Strategy for Sepsis in Malawi

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Thesis submitted in accordance with the requirements of the Liverpool School of Tropical Medicine for the degree of Doctor in Philosophy by Joseph Michael Lewis

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Sepsis in Blantyre, Malawi

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blah blah

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4.3.1 Study population

Figure 4.1 shows flow through the study. 225 patients were recruited in under 20 month, between 19th February 2017 and 2nd October 2018. In total, 4 patients (2%) were lost to follow up over the 180-day study period; 5 patients (2%) withdrew; and 7 patients (3%) transferred out of the study area before 180 days. Four of the five patients who withdrew gave a reason for their wish to withdraw, all that they no longer wished the inconvenience of bing involved in the study. 15/225 (7%) patients had their final study visit before 180 days, and so were not included in the 180-day outcome analysis.

Table 4.1: Demographics

levels	value
Demographics	
Age (years)	36 (28-44)
Male sex	114/225 (51%)

Table 4.1: Demographics *(continued)*

levels	value
HIV status	
HIV Reactive	134/225 (60%)
HIV Non Reactive	47/225 (21%)
HIV Unknown	44/225 (20%)
ART status	
Current ART	115/134 (86%)
Months on ART	30 (4-73)
ART regimen: 5A	108/115 (94%)
ART regimen: other	7/115 (6%)
CPT status	
Current CPT	98/134 (73%)
TB status	
Ever treated for TB	37/225 (16%)
Of those, current TB treatment	10/37 (27%)
Tobacco use	
Never	196/225 (87%)
Ex	17/225 (8%)
Current	12/225 (5%)
Alcohol use	
Current	51/225 (23%)
Education	
Primary incomplete or complete	97/225 (43%)
Secondary school complete	48/225 (21%)
Some secondary education	47/225 (21%)
College or higher	17/225 (8%)
No formal schooling	16/225 (7%)
Employment	
Unemployed	82/225 (36%)
Currently employed	65/225 (29%)
Self-employed	56/225 (25%)
Student	21/225 (9%)
Retired	1/225 (0%)
Toilet facilities	
Pit latrine with slab +/- foot rest	104/225 (46%)
Hanging toilet/latrine	59/225 (26%)
Pit latrine with slab and cover +/- foot rest	45/225 (20%)
Flush Toliet (any type)	14/225 (6%)
No toilet	2/225 (1%)
Composting toilet	1/225 (0%)
Main water source	

Table 4.1: Demographics *(continued)*

levels	value
Piped outside dwelling	69/225 (31%)
Tube well/borehole	64/225 (28%)
Public tap/standpipe	51/225 (23%)
Piped into dwelling	30/225 (13%)
Unprotected well/spring	5/225 (2%)
Surface water (including rainwater collection)	4/225 (2%)
Tube well with powered pump	2/225 (1%)
Electricty	
Electricity available in house	119/225 (53%)
Main cooking fuel	
Charcoal	161/225 (72%)
Wood	61/225 (27%)
Electricity	3/225 (1%)
Animals at home?	
Any animal	71/225 (32%)
Poultry	46/71 (65%)
Dogs	18/71 (25%)
Goats	12/71 (17%)
Other	11/71 (15%)

Table - demographics

Table - presentation

Table - health seeking behaviour

4.3.2 Aetiology

Table

Figure to show crossover

4.3.3 Treatment

Table: Time to antimicrobials Time to fluid Amount of fluid

4.3.4 Outcome

Table - 28 and 90 day mortality

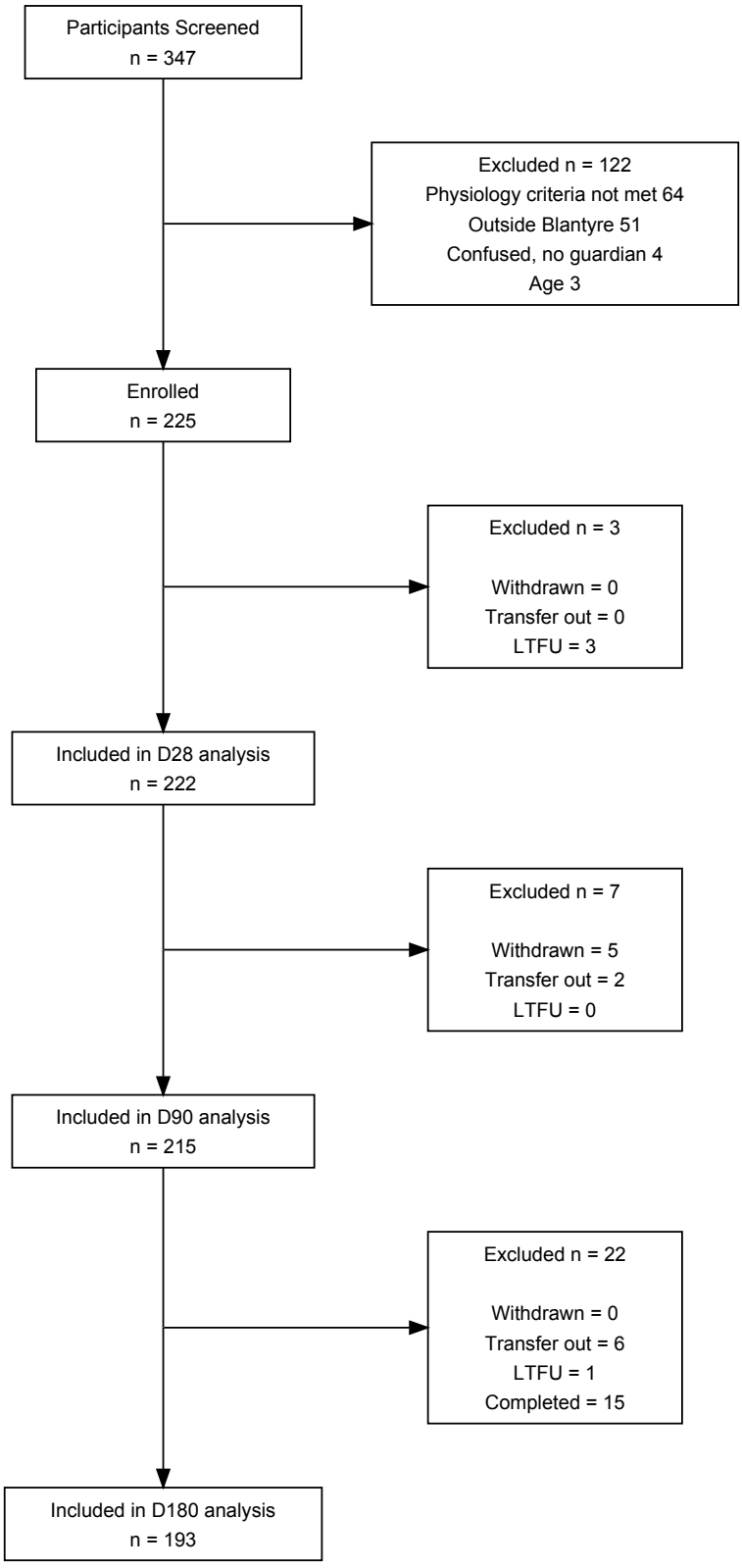

Figure 4.1: Study recruitment and follow up.

Figure - KM survival curve

Logistic regression - determinants of 28 day mortality

Morbidity -

Chapter 5

Early response to resusitation in sepsis

Chapter 6

Gut mucosal carriage of ESBL-E in Blantyre, Malawi

Chapter 7

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