Supplementary Table 1: Responses of Participants regarding triage Prerequisites and average length of stay at their respective hospitals (n=185)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Participants in Hospital‎ | | | | | | | |
| Ibrahim Malik | Al-Nau | Khartoum North | Omdurman | Al-Tamayouz | Alban Jadeed | Turkish | Ombada |
| Triage System Presence | Yes | 100.0% | 90.0% | 64.0% | 80.0% | 64.0% | 36.0% | 4.0% | 0.0% |
| No | 0.0% | 10.0% | 36.0% | 20.0% | 36.0% | 64.0% | 96.0% | 100.0% |
| Well-Functioning Triage | Yes | 36.0% | 77.8% | 25.0% | 65.0% | 31.3% | 66.7% | 100.0% | 0.0% |
| No | 64.0% | 22.2% | 75.0% | 35.0% | 68.8% | 33.3% | 0.0% | 0.0% |
| Immediate Triage upon Arrival | Yes | 88.0% | 88.9% | 68.8% | 90.0% | 75.0% | 55.6% | 100.0% | 0.0% |
| No | 12.0% | 11.1% | 25.0% | 5.0% | 25.0% | 11.1% | 0.0% | 0.0% |
| I don't know | 0.0% | 0.0% | 6.3% | 5.0% | 0.0% | 33.3% | 0.0% | 0.0% |
| Triage Assessment Time | <2 minutes | 16.0% | 16.7% | 0.0% | 15.0% | 12.5% | 11.1% | 0.0% | 0.0% |
| 2-5 minutes | 40.0% | 61.1% | 43.8% | 55.0% | 43.8% | 33.3% | 0.0% | 0.0% |
| >5 minutes | 36.0% | 0.0% | 18.8% | 20.0% | 37.5% | 11.1% | 100.0% | 0.0% |
| I don't know | 8.0% | 22.2% | 37.5% | 10.0% | 6.3% | 44.4% | 0.0% | 0.0% |
| Presence of Triage Scale or Guidelines | Yes | 72.0% | 16.7% | 37.5% | 50.0% | 18.8% | 22.2% | 0.0% | 0.0% |
| No | 28.0% | 83.3% | 62.5% | 50.0% | 81.3% | 77.8% | 100.0% | 0.0% |
| Adherence to Scale | Yes | 50.0% | 100.0% | 60.0% | 85.7% | 33.3% | 100.0% | 0.0% | 0.0% |
| No | 50.0% | 0.0% | 40.0% | 14.3% | 66.7% | 0.0% | 0.0% | 0.0% |
| Possibility of Mis-triage | Yes | 68.0% | 77.8% | 62.5% | 55.0% | 43.8% | 33.3% | 100.0% | 0.0% |
| No | 28.0% | 22.2% | 37.5% | 40.0% | 56.3% | 33.3% | 0.0% | 0.0% |
| I don't know | 4.0% | 0.0% | 0.0% | 5.0% | 0.0% | 33.3% | 0.0% | 0.0% |
| Adequate Documentation and reporting of cases | Yes | 56.0% | 60.0% | 60.0% | 68.0% | 60.0% | 56.0% | 76.0% | 66.7% |
| No | 40.0% | 40.0% | 36.0% | 28.0% | 28.0% | 36.0% | 16.0% | 26.7% |
| I don't know | 4.0% | 0.0% | 4.0% | 4.0% | 12.0% | 8.0% | 8.0% | 6.7% |
| Minimization of Aggression Training | Yes | 12.0% | 20.0% | 8.0% | 40.0% | 4.0% | 24.0% | 28.0% | 20.0% |
| No | 84.0% | 80.0% | 88.0% | 48.0% | 76.0% | 60.0% | 60.0% | 80.0% |
| I don't know | 4.0% | 0.0% | 4.0% | 12.0% | 20.0% | 16.0% | 12.0% | 0.0% |
| Protocols for dealing with aggressive patients | Yes | 12.0% | 25.0% | 20.0% | 40.0% | 16.0% | 28.0% | 16.0% | 13.3% |
| No | 84.0% | 70.0% | 68.0% | 48.0% | 76.0% | 64.0% | 64.0% | 86.7% |
| I don't know | 4.0% | 5.0% | 12.0% | 12.0% | 8.0% | 8.0% | 20.0% | 0.0% |
| Length of Stay | <= 4 hours | 0.0% | 45.0% | 28.0% | 4.0% | 32.0% | 28.0% | 20.0% | 20.0% |
| > 4 hours | 92.0% | 55.0% | 64.0% | 96.0% | 64.0% | 60.0% | 72.0% | 66.7% |
| I don't know | 8.0% | 0.0% | 8.0% | 0.0% | 4.0% | 12.0% | 8.0% | 13.3% |
| Length of Stay if more than 4 hours | upto 12 hours | 21.7% | 36.4% | 12.5% | 12.5% | 25.0% | 20.0% | 0.0% | 0.0% |
| upto 24 hours | 34.8% | 45.5% | 43.8% | 33.3% | 68.8% | 53.3% | 77.8% | 63.6% |
| upto 36 hours | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| upto 48 hours | 26.1% | 18.2% | 0.0% | 20.8% | 6.3% | 0.0% | 5.6% | 9.1% |
| more than 48 hours | 17.4% | 0.0% | 43.8% | 33.3% | 0.0% | 26.7% | 16.7% | 27.3% |

Supplementary Table 2: Pearson Chi-Square results for association between a well-functioning triage and various factors (n=185)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Well-Functioning Triage | | Chi-Square Value | P-value |
| Yes | No |
| Hospital‎ | Ibrahim Malik | 36.00% | 64.00% | 16.533 | 0.007 |
| Al-Nau | 77.80% | 22.20% |
| Khartoum North | 25.00% | 75.00% |
| Omdurman | 65.00% | 35.00% |
| Al-Tamayouz | 31.30% | 68.80% |
| Alban Jadeed | 66.70% | 33.30% |
| Gender | Male | 40.70% | 59.30% | 1.222 | 0.29 |
| Female | 52.60% | 47.40% |
| Job Qualification | House Officer | 52.90% | 47.10% | 10.412 | 0.166 |
| Medical Officer | 38.50% | 61.50% |
| Registrar | 66.70% | 33.30% |
| Specialist | 0.00% | 100.00% |
| Consultant | 0.00% | 100.00% |
| Nurse | 63.30% | 36.70% |
| Matron | 0.00% | 100.00% |
| Receptionist | 63.60% | 36.40% |
| Residence | Khartoum | 34.00% | 66.00% | 15.852 | 0.001 |
| Bahri | 36.80% | 63.20% |
| Omdurman | 75.70% | 24.30% |
| Other | 50.00% | 50.00% |
| Age Groups | <24 years | 44.40% | 55.60% | 6.285 | 0.615 |
| 25-29 years | 50.00% | 50.00% |
| 30-34 years | 63.60% | 36.40% |
| 35-39 years | 44.40% | 55.60% |
| 40-44 years | 75.00% | 25.00% |
| 45-49 years | 57.10% | 42.90% |
| 50-54 years | 0.00% | 100.00% |
| 55-59 years | 0.00% | 100.00% |
| 60-64 years | 0.00% | 100.00% |
| >65 years | 0.00% | 0.00% |
| Income | >4999 SDG | 43.20% | 56.80% | 5.172 | 0.739 |
| 5000-9999 SDG | 44.80% | 55.20% |
| 10000-14999 SDG | 58.60% | 41.40% |
| 15000-19999 SDG | 33.30% | 66.70% |
| 20000-24999 SDG | 100.00% | 0.00% |
| 25000-29999 SDG | 100.00% | 0.00% |
| 30000-34999 SDG | 50.00% | 50.00% |
| 35000-39999 SDG | 0.00% | 0.00% |
| 40000-44999 SDG | 0.00% | 0.00% |
| 45000-49999 SDG | 0.00% | 0.00% |
| 50000-54999 SDG | 50.00% | 50.00% |
| 55000-59999 SDG | 0.00% | 0.00% |
| 60000-64999 SDG | 0.00% | 0.00% |
| 65000-69999 SDG | 0.00% | 0.00% |
| 70000-74999 SDG | 0.00% | 0.00% |
| >75000 SDG | 100.00% | 0.00% |
| Immediate Triage upon Arrival | Yes | 58.80% | 41.20% | 15.706 | 0.000 |
| No | 6.70% | 93.30% |
| I don't know | 20.00% | 80.00% |
| Triage Assessment Time | <2 minutes | 46.20% | 53.80% | 5.678 | 0.128 |
| 2-5 minutes | 61.20% | 38.80% |
| >5 minutes | 33.30% | 66.70% |
| I don't know | 42.10% | 57.90% |
| Possibility of Mis-triage | Yes | 47.60% | 52.40% | 0.36 | 0.835 |
| No | 51.40% | 48.60% |
| I don't know | 60.00% | 40.00% |
| Presence of Triage Scale or Guidelines | Yes | 50.00% | 50.00% | 0.006 | 0.936 |
| No | 49.20% | 50.80% |
| Adherence to Scale | Yes | 60.90% | 39.10% | 3.634 | 0.57 |
| No | 28.60% | 71.40% |
| Minimization of Aggression Training | Yes | 87.00% | 13.00% | 16.592 | 0.000 |
| No | 39.50% | 60.50% |
| I don't know | 33.30% | 66.70% |
| Protocols for dealing with aggressive patients | Yes | 77.80% | 22.20% | 11.607 | 0.003 |
| No | 39.70% | 60.30% |
| I don't know | 40.00% | 60.00% |
| Adequate documentation and reporting of cases | Yes | 58.20% | 41.80% | 5.664 | 0.059 |
| No | 33.30% | 66.70% |
| I don't know | 40.00% | 60.00% |
| Length of Stay | < = 4 hours | 47.40% | 52.60% | 2.628 | 0.453 |
| > 4 hours | 48.70% | 51.30% |
| I don't know | 62.50% | 37.50% |
| Length of Stay if more than 4 hours | upto 12 hours | 33.30% | 66.70% | 7.199 | 0.066 |
| upto 24 hours | 64.70% | 35.30% |
| upto 36 hours | 0.00% | 0.00% |
| upto 48 hours | 28.60% | 71.40% |
| more than 48 hours | 46.70% | 53.30% |
| Substantial capital expenditure | Yes | 42.70% | 57.30% | 4.938 | 0.026 |
| No | 66.70% | 33.30% |
| Administrative role | Yes | 42.70% | 57.30% | 4.938 | 0.026 |
| No | 66.70% | 33.30% |
| Increasing staff’s awareness on correct application of guidelines | Yes | 33.30% | 66.70% | 5.745 | 0.017 |
| No | 58.00% | 42.00% |
| Adequate training on triage on correct means of triage | Yes | 39.10% | 60.90% | 7.176 | 0.007 |
| No | 65.90% | 34.10% |

Supplementary Table 3: Logistic regression results for association between a well-functioning triage and various factors (n=185)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variables | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I.for EXP(B) | |
| Lower | Upper |
| Hospital | -.067 | .175 | .145 | 1 | .703 | .936 | .664 | 1.318 |
| Residence | -.322 | .286 | 1.266 | 1 | .261 | .725 | .414 | 1.270 |
| Triage upon Arrival | 2.079 | .734 | 8.035 | 1 | .005 | 7.998 | 1.899 | 33.676 |
| Substantial capital expenditure | -.956 | .658 | 2.112 | 1 | .146 | .384 | .106 | 1.396 |
| Administrative role | -1.664 | .714 | 5.427 | 1 | .020 | .189 | .047 | .768 |
| Increasing staff’s awareness on correct application of guidelines | -.238 | .670 | .126 | 1 | .723 | .788 | .212 | 2.932 |
| Adequate Training on correct means of triage | -.473 | .582 | .660 | 1 | .416 | .623 | .199 | 1.950 |
| Minimization of Aggression Training | 1.226 | .668 | 3.366 | 1 | .067 | 3.408 | .920 | 12.628 |
| Protocols for dealing with Aggressive Patients | .466 | .565 | .681 | 1 | .409 | 1.594 | .527 | 4.822 |
| Constant | -.397 | 1.942 | .042 | 1 | .838 | .673 |  |  |