Supplement 1. Predictors of dispensing antibiotics without a prescription for diarrhoea cases

| Predictors | Interactions | | Univariate analysis | | Multivariate analysis | |
|---|---|--|---------------------|---------|-----------------------|---------|
| | Number of interactions in which antibiotic was dispensed n (%) | Total number of interactions N = 165 | OR (95% CI) | P value | OR (95%CI) | P value |
| | N=78 | | | | | |
| District | | | | | | |
| Tabalong (rural district) | 19 (38.8%) | 49 | 1 | | | |
| Bekasi (urban district) | 59 (50.9%) | 116 | 1.0 (1.0 -1.0) | 0.157 | | |
| Type of drug outlets | | | | | | |
| Drugstore | 9 (20%) | 45 | 1 | | | |
| Pharmacy attached to GP/specialist clinics | 18 (42.9%) | 42 | 3.0 (1.2 - 7.8) | 0.024 | 3.0 (1.2 - 7.8) | 0.024 |
| Standalone pharmacy | 51 (65.4%) | 78 | 7.6 (3.2 – 18.0) | <0.001 | 7.6 (3.2 – 18.0) | <0.001 |
| If a pharmacist or pharmacy technician was available during the visit | | | | | | |
| Yes | 24 (45.3%) | 53 | 1 | | | |
| No or don't know | 54 (48.2%) | 112 | 1.1 (0.6 – 2.2) | 0.725 | | |

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| Predictors | Interactions | | Univariate analysis | | Multivariate analysis | |
|-----------------------------|---|--|---------------------|---------|-----------------------|---------|
| | Number of interactions in which antibiotic was dispensed n (%) N=78 | Total number of interactions N = 165 | OR (95%CI) | P value | OR (95%CI) | P value |
| Gender of drug outlet staff | | | | | | |
| Female | 60 (49.2%) | 122 | 1.3 (0.7 – 2.7) | 0.409 | | |
| Male | 18 (41.9%) | 43 | 1 | | | |
| Day or night visit | | | | | | |
| Day visit | 52 (44.4%) | 117 | 1 | | | |
| Night visit | 26 (54.2%) | 48 | 1.5 (0.8 – 2.9) | 0.257 | | |

Model gave a sensitivity of 0.65, a specificity of 0.69, a positive predictive value of 0.65 and a negative predictive value of 0.69. Goodness of fit was not assessable as only a single variable remained in multivariate model.

Supplement 2. Predictors of dispensing antibiotics without a prescription for suspected TB cases

| Predictors | Interactions | | Univariate analysis | | Multivariate analysis | |
|---|--|---------------------------------|---------------------|---------|-----------------------|---------|
| | Number of interactions in which antibiotic was dispensed | Total number of interactions | OR (95%CI) | P value | OR (95%CI) | P value |
| | n (%) N=133 | N = 165 | | | | |
| District | | | | | | |
| Tabalong (rural district) | 38 (77.6%) | 49 | 1 | | | |
| Bekasi (urban district) | 95 (81.9%) | 116 | 1.0 (1.0 – 1.0) | 0.520 | | |
| Type of drug outlets | | | | | | |
| Drugstore | 29 (66.0%) | 44 | 1 | | 1 | |
| Pharmacy attached to GP/specialist clinics | 31 (73.8%) | 42 | 1.5 (0.6 – 3.8) | 0.416 | 1.5 (0.6 – 3.8) | 0.416 |
| Standalone pharmacy | 73 (92.4%) | 79 | 6.8 (2.2 – 21.5) | 0.001 | 6.8 (2.2 – 21.5) | 0.001 |
| If a pharmacist or pharmacy technician was available during the visit | | | | | | |
| Yes | 32 (72.7%) | 44 | 1 | | | |
| No or don't know | 101 (83.5%) | 121 | 1.9 (0.8 – 4.3) | 0.126 | | |
| Gender of drug outlet staff | | | | | | |

| Predictors | Interactions | | Univariate analysis | | Multivariate analysis | |
|--------------------|--|---------------------------------|---------------------|---------|-----------------------|---------|
| | Number of interactions in which antibiotic was dispensed | Total number of interactions | OR (95%CI) | P value | OR (95%CI) | P value |
| | n (%) N=133 | N = 165 | | | | |
| Female | 104 (81.3%) | 128 | 1.2 (0.5 – 2.9) | 0.697 | | |
| Male | 29 (78.4%) | 37 | 1 | | | |
| Day or night visit | | | | | | |
| Day visit | 84 (78. 5%) | 107 | 1 | | | |
| Night visit | 49 (84.5%) | 58 | 1.5 (0.6 – 3.5) | 0.356 | | |

Model gave a sensitivity of 0.55, a specificity of 0.81, a positive predictive value of 0.92, and a negative predictive value of 0.30. Goodness of fit was not assessable as only a single variable remained in multivariate model.

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Supplement 3. Predictors of dispensing antibiotics without a prescription for URTI cases

| Predictors | Interactions | | Univariate analysis | | Multivariate analysis | |
|---|--|---------------------------------|---------------------|---------|-----------------------|---------|
| | Number of interactions in which antibiotic was dispensed | Total number of interactions | OR (95%CI) | P value | OR (95% CI) | P value |
| | n (%) N=131 | N = 165 | | | | |
| District | | | | | | |
| Tabalong (rural district) | 42 (85.7%) | 49 | 1 | | | |
| Bekasi (urban district) | 89 (76.7%) | 116 | 1.0 (0.9 – 1.0) | 0.196 | | |
| Type of drug outlets | | | | | | |
| Drugstore | 29 (65.9%) | 44 | 1 | | | |
| Pharmacy attached to GP/specialist clinics | 34 (81.0%) | 42 | 2.9 (1.0 - 8.6) | 0.055 | 2.9 (1.0 - 8.6) | 0.055 |
| Standalone pharmacy | 68 (86.1%) | 79 | 5.9 (1.9 – 18.2) | 0.002 | 5.9 (1.9 – 18.2) | 0.002 |
| If a pharmacist or pharmacy technician was available during the visit | | | | | | |
| Yes | 42 (77.8%) | 54 | 1 | | | |
| No or don't know | 89 (80.2%) | 111 | 1.1 (0.5 – 2.6) | 0.772 | | |
| Gender of drug outlet staff | | | | | | |

| Predictors | Interactions | | Univariate analysis | | Multivariate analysis | |
|--------------------|---|--|---------------------|---------|-----------------------|---------|
| | Number of interactions in which antibiotic was dispensed n (%) | Total number of interactions N = 165 | OR (95%CI) | P value | OR (95%CI) | P value |
| | N=131 | | | | | |
| Female | 100 (80.0%) | 125 | 1.2 (0.5 – 3.0) | 0.674 | | |
| Male | 31 (77.5%) | 40 | 1 | | | |
| Day or night visit | | | | | | |
| Day visit | 89 (80.2%) | 111 | 1 | | | |
| Night visit | 42 (77.8%) | 54 | 0.8 (0.4 – 1.9) | 0.675 | | |

Model gave a sensitivity of 0.78, a specificity of 0.44, a positive predictive value of 0.84 and a negative predictive value of 0.34. Goodness of fit was not assessable as only a single variable remained in multivariate model.