

S1 Table. Extended baseline characteristics of the study population

| Characteristic | Overall (N=374) | | Intermittent & mild asthma (N=88) | | moderate persistent & severe persistent asthma (N=286) | | P-value |
|---|--------------------|--------------------------|---|--------------------------|---|--------------------------|---------|
| | N | n (%) or median (IQR) | N | n (%) or median (IQR) | N | n (%) or median (IQR) | |
| | | | | | | | |
| Current age in years, median | 369 | 34 (25 - 45) | 88 | 29 (23 - 41) | 281 | 35 (26 - 46) | 0.013 |
| Age when first diagnosed with asthma | 372 | 25 (15 - 36) | 87 | 23 (15 - 33) | 285 | 25 (15 - 36) | 0.650 |
| Categories of current age in years | 367 | | 87 | | 280 | | |
| 18 - 24 | | 86 (23.4) | | 24 (27.6) | | 62 (22.1) | 0.234 |
| 25 - 34 | | 102 (27.8) | | 31 (35.6) | | 71 (25.4) | |
| 35 - 44 | | 82 (22.3) | | 15 (17.2) | | 67 (23.9) | |
| 45 - 54 | | 49 (13.4) | | 8 (9.2) | | 41 (14.6) | |
| 55 - 64 | | 37 (10.1) | | 7 (8) | | 30 (10.7) | |
| 65+ | | 11 (3) | | 2 (2.3) | | 9 (3.2) | |
| Male Gender | 374 | 88 (23.5) | 88 | 20 (22.7) | 286 | 68 (23.8) | 0.839 |
| Overall BMI | 374 | 24.8 (21.6 - 29.5) | 88 | 23.7 (20.9 - 28.9) | 286 | 25.7 (21.6 - 29.7) | 0.104 |
| Underweight | | 22 (5.9) | | 5 (5.7) | | 17 (5.9) | |
| Normal | | 168 (44.9) | | 50 (56.8) | | 118 (41.3) | 0.040 |
| Overweight | | 103 (27.5) | | 15 (17) | | 88 (30.8) | |
| Obese | | 81 (21.7) | | 18 (20.5) | | 63 (22) | |
| Marital Status | 374 | | 88 | | 286 | | |
| Single | | 131 (35) | | 35 (39.8) | | 96 (33.6) | 0.031 |
| Married | | 188 (50.3) | | 44 (50) | | 144 (50.3) | |
| Separated | | 27 (7.2) | | 8 (9.1) | | 19 (6.6) | |
| Widowed | | 28 (7.5) | | 1 (1.1) | | 27 (9.4) | |
| Highest level of education | 374 | | 88 | | 286 | | |
| None | | 14 (3.7) | | 2 (2.3) | | 12 (4.2) | 0.001 |
| Primary | | 118 (31.6) | | 16 (18.2) | | 102 (35.7) | |
| Secondary | | 133 (35.6) | | 46 (52.3) | | 87 (30.4) | |
| Tertiary | | 109 (29.1) | | 24 (27.3) | | 85 (29.7) | |
| Occupational risk | 373 | | 88 | | 285 | | |

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|---|-----|----------------|----|---------------|-----|----------------|-------|
| Low | | 200 (53.6) | | 45 (51.1) | | 155 (54.4) | 0.347 |
| Moderate | | 123 (33.0) | | 34 (38.6) | | 89 (31.2) | |
| High | | 50 (13.4) | | 9 (10.2) | | 41 (14.4) | |
| Cough | 374 | 170 (45.5) | 88 | 31 (35.2) | 286 | 139 (48.6) | 0.028 |
| Duration in days | 170 | 7 (5 - 30) | 31 | 7 (7 - 30) | 139 | 7 (5 - 30) | 0.716 |
| Wheezing | 374 | 152 (40.6) | 88 | 24 (27.3) | 286 | 128 (44.8) | 0.004 |
| Duration in days | 152 | 7 (5 - 25.5) | 24 | 10.5 (7 - 22) | 128 | 7 (4 - 25.5) | 0.267 |
| Chest Pain | 374 | 119 (31.8) | 88 | 18 (20.5) | 286 | 101 (35.3) | 0.009 |
| Duration in days | 118 | 7 (7 - 14) | 18 | 10.5 (7 - 16) | 100 | 7 (3 - 14) | 0.157 |
| Shortness of breath | 374 | 105 (28.1) | 88 | 14 (15.9) | 286 | 91 (31.8) | 0.004 |
| Duration in days | 105 | 7 (3 - 14) | 14 | 14 (7 - 30) | 91 | 7 (3 - 14) | 0.081 |
| Blocked Nose | 374 | 32 (8.6) | 88 | 6 (6.8) | 286 | 26 (9.1) | 0.505 |
| Duration in days | 32 | 8.5 (5 - 30) | 6 | 10.5 (5 - 30) | 26 | 8.5 (5 - 30) | 0.942 |
| Running nose | 374 | 22 (5.9) | 88 | 8 (9.1) | 286 | 14 (4.9) | 0.144 |
| Duration in days | 22 | 12 (7 - 30) | 8 | 7 (7 - 30) | 14 | 14 (7 - 30) | 0.422 |
| Sputum production | 374 | 22 (5.9) | 88 | 3 (3.4) | 286 | 19 (6.6) | 0.312 |
| Duration in days | 21 | 7 (41760) | 3 | 7 (11140) | 18 | 7 (41760) | 0.627 |
| Sore throat | 374 | 4 (1.1) | 88 | 0 (0) | 286 | 4 (1.4) | 0.577 |
| Duration in days | 4 | 5 (2.5 - 18.5) | 0 | | 4 | 5 (2.5 - 18.5) | NA |
| Level of asthma control | 372 | | | | | | |
| Well controlled | | 94 (25.3) | 88 | 46 (52.3) | 284 | 48 (16.8) | 0.000 |
| Not well controlled | | 278 (74.7) | | 42 (47.7) | | 236 (82.5) | |
| Currently comorbidities | 374 | | 88 | | 286 | | |
| Rhino sinusitis | | 115 (30.7) | | 33 (37.5) | | 82 (28.7) | 0.117 |
| Gastroesophageal reflux disease | | 90 (24.1) | | 15 (17) | | 75 (26.2) | 0.078 |
| Hypertension | | 42 (11.2) | | 7 (8) | | 35 (12.2) | 0.266 |
| HIV | | 28 (7.5) | | 3 (3.4) | | 25 (8.7) | 0.109 |
| Eczema/dermatitis | | 23 (6.1) | | 3 (3.4) | | 20 (7) | 0.311 |
| Obstructive sleep apnea | | 10 (2.7) | | 1 (1.1) | | 9 (3.1) | 0.463 |
| Depression or other psychiatry illness | | 3 (0.8) | | 0 (0) | | 3 (1) | 1.000 |
| Heart failure | | 1 (0.3) | | 0 (0) | | 1 (0.3) | 1.000 |
| Nasal polyps | | 0 (0) | | 0 (0) | | 0 (0) | NA |
| COPD | | 0 (0) | | 0 (0) | | 0 (0) | NA |
| None of the above | | 171 (45.7) | | 42 (47.7) | | 147 (51.4) | 0.385 |

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|---|-----|--------------------|----|--------------------|-----|--------------------|-------|
| Pre-measurements | | | 88 | | 286 | | |
| FVC | 374 | 2.9 (2.2 - 3.4) | | 3.3 (2.9 - 3.6) | | 2.7 (2.1 - 3.2) | 0.000 |
| FVC% | 374 | 100 (83 - 112) | | 110 (103 - 120) | | 95.5 (78 - 109) | 0.000 |
| FEV1 | 374 | 2.1 (1.6 - 2.7) | | 2.6 (2.3 - 3.0) | | 1.97 (1.4 - 2.5) | 0.000 |
| FEV1% | 374 | 88 (65 - 105) | | 103 (91.5 - 115.5) | | 79 (60 - 100) | 0.000 |
| FEV1/FVC ratio | 374 | 0.76 (0.66 - 0.84) | | 0.82 (0.74 - 0.88) | | 0.73 (0.63 - 0.83) | 0.000 |
| Lung function | 374 | | | | | | |
| Normal | | 201 (53.7) | | 76 (86.4) | | 125 (43.7) | 0.000 |
| Poor | | 173 (46.3) | | 12 (13.6) | | 161 (56.3) | |
| Post-measurement | | | 9 | | 117 | | |
| FVC | 126 | 2.6 (2.2 - 3.4) | | 3.1 (2.8 - 3.6) | | 2.62 (2.2 - 3.4) | 0.050 |
| FVC % | 126 | 99.5 (80 - 112) | | 117 (111 - 120) | | 97 (80 - 111) | 0.002 |
| FEV1 | 126 | 1.8 (1.3 - 2.3) | | 2.3 (2.1 - 2.5) | | 1.73 (1.29 - 2.2) | 0.010 |
| FEV1% | 126 | 73.5 (56 - 89) | | 98 (92 - 103) | | 71 (56 - 87) | 0.000 |
| FEV1/FVC ratio | 126 | 0.65 (0.56 - 0.71) | | 0.74 (0.7 - 0.76) | | 0.64 (0.56 - 0.71) | 0.006 |
| Methacholine challenge test | 361 | | 85 | | 277 | | |
| Positive | | 23 (6.4) | | 2 (2.4) | | 21 (7.6) | 0.190 |
| Negative | | 338 (93.4) | | 83 (97.6) | | 255 (92.1) | |
| Skin prick, at least one allergen positive | 331 | | 71 | | 260 | (0) | |
| Yes | | 310 (93.7) | | 67 (94.4) | | 243 (93.5) | 1.000 |
| No | | 21 (6.3) | | 4 (5.6) | | 17 (6.5) | |
| Eosinophilic count | 374 | | | | | | |
| AEC<500 | | 310 (82.9) | | 72 (81.8) | | 238 (83.2) | 0.761 |
| AEC>=500 | | 64 (17.1) | | 16 (18.2) | | 48 (16.8) | |
| Eosinophil count | 374 | 210 (110 - 390) | | 200 (110 - 410) | | 215 (100 - 390) | 0.984 |
| Total BHQ score | 374 | 72 (49 - 98) | 88 | 61.5 (32.5 - 78.5) | 286 | 77.5 (53 - 102) | 0.000 |
| Patient uses ICS | 370 | 34 (9.2) | 87 | 3 (3.4) | 283 | 31 (11) | 0.034 |
| History of smoking | 374 | | 88 | | 286 | | |
| Current smoker | | 1 (0.3) | | 0 (0) | | 1 (0.3) | 0.569 |
| Former smoker | | 22 (5.9) | | 7 (8) | | 15 (5.2) | |
| Never | | 351 (93.9) | | 81 (92) | | 270 (94.4) | |
| Secondary smoker | 374 | 20 (5.3) | 88 | 4 (4.5) | 286 | 16 (5.6) | 1.000 |
| Relatives who have asthma | 372 | | 87 | | 285 | | |
| Yes | | 222 (59.7) | | 50 (57.5) | | 172 (60.4) | 0.149 |

| | | | | | | | |
|--|-----|------------|----|-----------|-----|------------|-------|
| No | | 89 (23.9) | | 27 (31) | | 62 (21.8) | |
| Don't know | | 61 (16.4) | | 10 (11.5) | | 51 (17.9) | |
| Exposed to firewood/ charcoal smoke | 374 | 344 (92) | 88 | 76 (86.4) | 286 | 268 (93.7) | 0.027 |
| Use of kerosene for lighting or cooking | 374 | 374 (100) | 88 | 12 (13.6) | 286 | 37 (12.9) | 0.865 |
| Depression status according to total PHQ-9 score | 374 | | 88 | | 286 | | |
| No depression | | 15 (4) | | 9 (10.2) | | 6 (2.1) | 0.000 |
| Minimal depression | | 96 (25.7) | | 27 (30.7) | | 69 (24.1) | |
| Mild depression | | 113 (30.2) | | 32 (36.4) | | 81 (28.3) | |
| Moderate depression | | 92 (24.6) | | 11 (12.5) | | 81 (28.3) | |
| Moderately severe depression | | 47 (12.6) | | 9 (10.2) | | 38 (13.3) | |
| Severe depression | | 11 (2.9) | | 0 (0) | | 11 (3.8) | |
| Patient uses inhaler medication | 370 | 108 (29.2) | 87 | 13 (14.9) | 283 | 95 (33.6) | 0.001 |
| Asthma triggers | 374 | | 88 | | 286 | | |
| Upper respiratory infection | | 371 (99.2) | | 87 (98.9) | | 284 (99.3) | 0.514 |
| Exposure to household pets such as cats, dogs or poultry | | 13 (3.5) | | 4 (4.5) | | 9 (3.1) | 0.514 |
| Smoking or exposure to tobacco smoke | | 356 (95.2) | | 81 (92) | | 275 (96.2) | 0.115 |
| Strong emotions such as anger, excitement, anxiety | | 223 (59.6) | | 45 (51.1) | | 178 (62.2) | 0.063 |
| Cold weather | | 341 (91.2) | | 82 (93.2) | | 259 (90.6) | 0.448 |
| Drugs such those treating high blood pressure and pain killers like aspirin | | 1 (0.3) | | | | 1 (0.3) | 1.000 |
| Exercise | | 116 (31) | | 21 (23.9) | | 95 (33.2) | 0.097 |
| Dust | | 359 (96) | | 83 (94.3) | | 276 (96.5) | 0.361 |
| Strong smells or perfumes | | 315 (84.2) | | 74 (84.1) | | 241 (84.3) | 0.969 |
| Exposure at work | | 13 (3.5) | | 2 (2.3) | | 11 (3.8) | 0.741 |
| Other | | 5 (1.3) | | 2 (2.3) | | 3 (1) | 0.336 |
| None of the above | | 0 (0) | | 0 (0) | | 0 (0) | NA |