**Supplementary Tables**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Cases** | **Controls** | **Total** |
| **Total** | N | % | N | % | N | % |
|  | 5,032 | 100.0 | 20,128 | 100.0 | 25,160 | 100.0 |
| **Clinical characteristics** |   |   |   |   |   |   |
| **Smoking history** |   |   |  |  |   |   |
| Never | 1,723 | 34.2 | 7,858 | 39.0 | 9,581 | 38.1 |
| Current | 1,670 | 33.2 | 5,462 | 27.1 | 7,132 | 28.3 |
| Ex-smoker | 1,629 | 32.4 | 6,742 | 33.5 | 8,371 | 33.3 |
| **BMI** |   |   |  |  |   |   |
| Normal | 1,351 | 26.8 | 6,698 | 33.3 | 8,049 | 32.0 |
| Underweight | 117 | 2.3 | 390 | 1.9 | 507 | 2.0 |
| Overweight | 1,369 | 27.2 | 6,114 | 30.4 | 7,483 | 29.7 |
| Obese | 1,975 | 39.2 | 5,527 | 27.5 | 7,502 | 29.8 |
| **Atopy** |   |   |  |  |   |   |
| Yes | 2,728 | 54.2 | 10,910 | 54.2 | 13,638 | 54.2 |
| **Reflux** |   |   |  |  |   |   |
| Yes | 848 | 16.9 | 2,156 | 10.7 | 3,004 | 11.9 |
| **Anxiety** |   |   |  |  |   |   |
| Yes | 1,526 | 30.3 | 5,006 | 24.9 | 6,532 | 26.0 |
| **Pharmacological management** |   |   |   |   |   |   |
| **SABA canisters** |   |   |  |  |   |   |
| none | 821 | 16.3 | 7,349 | 36.5 | 8,170 | 32.5 |
| 0-3 | 2,039 | 40.5 | 8,024 | 39.9 | 10,063 | 40.0 |
| >3 | 2,172 | 43.2 | 4,755 | 23.6 | 6,927 | 27.5 |
| **ICS dose** |   |   |  |  |   |   |
| None | 1,176 | 23.4 | 9,209 | 45.8 | 10,385 | 41.3 |
| Low | 1,734 | 34.5 | 7,158 | 35.6 | 8,892 | 35.3 |
| Medium | 1,187 | 23.6 | 2,873 | 14.3 | 4,060 | 16.1 |
| High | 935 | 18.6 | 888 | 4.4 | 1,823 | 7.2 |
| **Add-on treatment** |   |   |  |  |   |   |
| None | 2,081 | 41.4 | 14,351 | 71.3 | 16,432 | 65.3 |
| 1 drug | 1,923 | 38.2 | 5,085 | 25.3 | 7,008 | 27.9 |
| ≥ drugs | 1,028 | 20.4 | 692 | 3.4 | 1,720 | 6.8 |
| **Non-pharmacological** |   |   |   |   |   |   |
| **Self-management plan** |   |   |  |  |   |   |
| Yes | 551 | 10.9 | 1,583 | 7.9 | 2,134 | 8.5 |
| **Asthma control questionnaire** |   |   |  |  |   |   |
| Yes | 102 | 2.0 | 326 | 1.6 | 428 | 1.7 |
| **Annual review** |   |   |  |  |   |   |
| Yes | 2,500 | 49.7 | 7,110 | 35.3 | 9,610 | 38.2 |
| **Inhaler technique check** |   |   |  |  |   |   |
| Yes | 1,768 | 35.1 | 4,967 | 24.7 | 6,735 | 26.8 |
| **Exacerbations** |   |   |   |   |   |   |
| **GP treated (short course OCS)** |   |   |  |  |   |   |
| none | 3,068 | 61.0 | 18,045 | 89.7 | 21,113 | 83.9 |
| 1 | 415 | 8.2 | 633 | 3.1 | 1,048 | 4.2 |
| 2 | 649 | 12.9 | 915 | 4.5 | 1,564 | 6.2 |
| ≥3 | 900 | 17.9 | 535 | 2.7 | 1,435 | 5.7 |
| **A&E visit** |   |   |  |  |   |   |
| Yes | 321 | 6.4 | 90 | 0.4 | 411 | 1.6 |
| **Hospital admission** |   |   |  |  |   |   |
| Yes | 692 | 13.8 | 51 | 0.3 | 743 | 3.0 |

Supplementary Table 1. Characteristics of the nested case-control.