**Supplementary Material**

**Table S1A. Pre-Index and Concomitant Antihyperglycemic Therapies**

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Belgium** | **France** | **Germany** |
| ***Index Therapy Cohort*** | **DULA** | **ExBID** | **ExQW** | **LIRA** | **LIXI** | **DULA** | **ExBID** | **ExQW** | **LIRA** | **DULA** | **ExBID** | **ExQW** | **LIRA** |
| **N=389** | **N=68** | **N=1,058** | **N=997** | **N=407** | **N=3,464** | **N=487** | **N=3,111** | **N=8,012** | **N=23,039** | **N=2,579** | **N=2,181**  | **N=15,792** |
| **Number of antihyperglycemic therapy classes used in the 180-day Pre-Index Period** |   |   |   |   |
| Mean | 2.2 | 1.4 | 2.2 | 1.7 | 2.6 | 2.5 | 2.3 | 2.4 | 2.3 | 2.5 | 2.0 | 1.9 | 2.0 |
| SD | 0.9 | 1.2 | 0.9 | 1.1 | 1.0 | 1.0 | 1.3 | 1.0 | 1.2 | 1.0 | 1.0 | 0.9 | 1.0 |
| Median | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 |
| **Frequent (>10%) antihyperglycemic therapy classes used in the 180-day Pre-Index Period (%)a**  |   |   |   |
| Fast-acting insulin | 2.1 | 5.9 | 1.3 | 3.3 | 12.5 | 12.7 | 15.8 | 6.6 | 10.6 | 41.9 | 17.7 | 13.2 | 17.0 |
| Intermediate-acting insulin | 1.3 | 2.9 | 1.3 | 1.3 | 19.9 | 0.8 | 0.6 | 0.2 | 1.1 | 9.3 | 7.8 | 3.9 | 6.0 |
| Long-acting insulin | 2.8 | 2.9 | 1.6 | 3.6 | 36.1 | 28.1 | 35.7 | 15.5 | 27.5 | 41.6 | 30.7 | 18.1 | 29.1 |
| Sulphonylurea | 72.5 | 44.1 | 73.9 | 53.2 | 57.0 | 57.5 | 49.4 | 61.4 | 51.5 | 10.2 | 12.3 | 15.1 | 13.1 |
| Biguanide | 77.4 | 52.9 | 83.5 | 68.8 | 84.0 | 64.2 | 59.9 | 60.5 | 59.7 | 55.5 | 69.0 | 55.3 | 67.6 |
| Glinide | 11.3 | 8.8 | 10.2 | 9.4 | 12.3 | 14.6 | 16.2 | 15.3 | 14.2 | 5.1 | 3.9 | 6.0 | 5.0 |
| DPP-IV | 36.8 | 7.4 | 35.8 | 23.8 | 21.1 | 28.5 | 22.3 | 28.9 | 24.4 | 23.8 | 15.6 | 22.0 | 19.2 |
| DPP-IV/Biguanide | 13.4 | 2.9 | 5.9 | 2.8 | 4.9 | 40.0 | 23.8 | 44.9 | 31.2 | 28.5 | 21.1 | 30.7 | 24.1 |
| SGLT2 | 3.9 | 2.9 | 0.7 | 1.5 | 1.0 |   |   |   |   | 19.5 | 12.3 | 17.2 | 11.9 |
| **Number of concomitant antihyperglycemic therapy classes used on the Index Datea** |   |   |   |   |
| Mean | 1.6 | 1.4 | 1.6 | 1.5 | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 | 1.4 | 1.1 | 1.0 | 1.1 |
| SD | 0.7 | 1.0 | 0.8 | 0.7 | 0.9 | 0.8 | 0.9 | 0.8 | 0.8 | 1.0 | 0.8 | 0.8 | 0.8 |
| Median | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| **Frequent (>10%) concomitant antihyperglycemic therapy classes used on the Index Date (%)a,b**   |
| Fast-acting insulin | 0.5 | 1.5 | 0.9 | 1.9 | 6.9 | 8.8 | 7.5 | 4.8 | 6.5 | 30.6 | 6.6 | 8.0 | 8.1 |
| Intermediate-acting insulin | 0.5 | 1.5 | 0.6 | 0.1 | 15.2 | 0.5 | 0.4 | 0.0 | 0.6 | 4.4 | 3.6 | 1.7 | 2.6 |
| Long-acting insulin | 1.5 | 1.5 | 0.9 | 2.6 | 28.3 | 23.3 | 31.6 | 11.7 | 22.2 | 26.0 | 19.3 | 9.4 | 17.6 |
| Sulphonylurea | 66.1 | 44.1 | 66.1 | 57.4 | 52.3 | 51.8 | 50.5 | 55.6 | 51.4 | 2.7 | 5.6 | 4.9 | 4.2 |
| Biguanide | 79.7 | 73.5 | 76.7 | 77.5 | 73.5 | 80.4 | 77.8 | 74.0 | 79.8 | 47.0 | 52.7 | 43.5 | 55.6 |
| Glinide | 8.7 | 4.4 | 7.3 | 7.9 | 6.6 | 10.3 | 13.3 | 11.9 | 12.3 | 1.6 | 1.7 | 2.7 | 2.1 |
| DPP-IV | 1.8 | 1.5 | 3.1 | 1.9 | 1.7 | 7.3 | 9.4 | 10.2 | 6.8 | 3.6 | 3.5 | 5.3 | 3.1 |
| DPP-IV/Biguanide | 1.0 | 1.5 | 0.4 | 0.1 | 0.2 | 9.9 | 9.0 | 16.8 | 8.9 | 4.1 | 4.9 | 7.2 | 3.9 |
| SGLT2 | 1.0 | 4.4 | 0.1 | 0.4 | 0.0 |   |   |   |   | 8.4 | 5.8 | 8.1 | 5.8 |

aNot mutually exclusive; bConcomitant = 1) time between therapy class prescriptions in pre- and post-index of 120 days or less, with overlap on index or 2) with prescription on the index date.

*DULA* dulaglutide, *exBID* exenatide twice daily, *exQW* exenatide once weekly, *LIXI* lixisenatide, *LIRA* liraglutide

**Table S1B. Pre-Index and Concomitant Antihyperglycemic Therapies**

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Italy** | **Netherlands** | **Canada** |
| ***Index Therapy Cohort*** | **DULA** | **ExBID** | **ExQW** | **LIRA** | **LIXI** | **DULA** | **ExBID** | **ExQW** | **LIRA** | **LIXI** | **DULA** | **ExBID** | **ExQW** | **LIRA** |
| **N=5,795** | **N=393** | **N=4,346** | **N=9,557** | **N=1,772** | **N=180** | **N=18** | **N=86** | **N=1,225** | **N=25** | **N=1,782** | **N=71** | **N=356** | **N=12,734** |
| **Number of antihyperglycemic therapy classes used in the 180-day Pre-Index Period** |  |
| Mean | 1.9 | 1.5 | 1.9 | 2.0 | 2.2 | 2.4 | 1.7 | 2.2 | 2.3 | 2.3 | 3.0 | 2.5 | 2.9 | 2.5 |
| SD | 1.0 | 0.9 | 1.0 | 1.0 | 1.1 | 0.8 | 1.1 | 0.7 | 0.9 | 0.6 | 1.1 | 1.3 | 1.2 | 1.2 |
| Median | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| **Frequent (>10%) antihyperglycemic therapy classes used in the 180-day Pre-Index Period (%)a** |  |
| Fast-acting insulin | 4.9% | 5.3% | 4.6% | 11.6% | 17.0% | 6.1% | 5.6% | 3.5% | 17.6% | 4.0% | 23.1% | 32.3% | 25.8% | 18.0% |
| Intermediate-acting insulin | 0.5% | 1.0% | 0.3% | 0.7% | 1.0% | 3.3% | 5.6% | 1.2% | 3.9% | 4.0% | 7.0% | *s* | 4.7% | 7.7% |
| Long-acting insulin | 10.3% | 7.9% | 9.5% | 26.0% | 35.2% | 15.0% | 5.6% | 9.3% | 24.1% | 20.0% | 37.3% | 45.0% | 44.1% | 28.7% |
| Sulphonylurea | 31.6% | 24.7% | 30.1% | 26.3% | 29.0% | 88.9% | 55.6% | 74.4% | 69.1% | 72.0% | 43.9% | 30.9% | 35.6% | 41.6% |
| Biguanide | 73.1% | 81.2% | 76.8% | 77.0% | 80.5% | 82.2% | 72.2% | 89.5% | 84.0% | 88.0% | 64.1% | 78.8% | 54.7% | 74.0% |
| Glinide | 8.3% | 7.1% | 8.3% | 9.1% | 11.3% | 0.0% | 0.0% | 1.2% | 0.3% | 0.0% | 2.8% | *s* | 3.0% | 2.7% |
| DPP-IV | 12.3% | 3.3% | 10.8% | 7.8% | 7.8% | 27.8% | 5.6% | 20.9% | 16.4% | 24.0% | 29.7% | 25.3% | 21.6% | 28.3% |
| DPP-IV/Biguanide | 23.0% | 3.3% | 16.3% | 11.7% | 12.4% | 7.2% | 5.6% | 3.5% | 3.0% | 16.0% | 33.8% | *s* | 31.7% | 21.5% |
| SGLT2 | 4.2% | 1.0% | 1.8% | 1.8% | 1.4% | 7.2% | 5.6% | 11.6% | 2.2% | 4.0% | 46.5% | 25.3% | 59.5% | 20.7% |
| **Number of concomitant antihyperglycemic therapy classes used on the Index Datea** |  |
| Mean | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.6 | 1.7 | 1.5 | 1.5 | 1.5 | 2.1 | 2.0 | 2.2 | 1.8 |
| SD | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 1.1 | 0.8 | 0.8 | 0.6 | 1.1 | 1.1 | 1.1 | 1.0 |
| Median | 1 | 1 | 1 | 1 | 1 | 2 | 1.5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| **Frequent (>10%) concomitant antihyperglycemic therapy classes used on the Index Date (%)a,b**  |  |
| Fast-acting insulin | 1.1% | 1.8% | 1.4% | 2.3% | 2.9% | 1.1% | 5.6% | 3.5% | 4.9% | 0.0% | 17.1% | 28.1% | 19.6% | 13.6% |
| Intermediate-acting insulin | 0.1% | 0.3% | 0.1% | 0.2% | 0.0% | 0.0% | 5.6% | 0.0% | 0.4% | 0.0% | 4.6% | *s* | 3.0% | 5.2% |
| Long-acting insulin | 2.8% | 3.6% | 2.9% | 14.1% | 19.6% | 2.2% | 0.0% | 5.8% | 7.0% | 4.0% | 30.9% | 39.4% | 35.1% | 23.8% |
| Sulphonylurea | 17.7% | 13.2% | 19.3% | 14.6% | 15.7% | 69.4% | 66.7% | 59.3% | 60.5% | 60.0% | 34.2% | 22.5% | 28.3% | 31.4% |
| Biguanide | 61.7% | 60.3% | 62.3% | 61.2% | 64.9% | 73.9% | 77.8% | 74.4% | 72.5% | 80.0% | 66.5% | 70.4% | 54.7% | 70.3% |
| Glinide | 3.3% | 4.1% | 3.9% | 4.1% | 4.3% | 0.0% | 0.0% | 1.2% | 0.1% | 4.0% | 1.6% | *s* | 2.2% | 1.6% |
| DPP-IV | 0.8% | 0.5% | 0.9% | 0.5% | 0.7% | 6.7% | 0.0% | 1.2% | 2.6% | 0.0% | 5.6% | 11.2% | 7.5% | 6.9% |
| DPP-IV/Biguanide | 1.2% | 0.3% | 1.5% | 1.0% | 1.6% | 1.7% | 0.0% | 0.0% | 0.3% | 0.0% | 7.5% | 0.0% | 12.6% | 6.2% |
| SGLT2 | 0.6% | 0.0% | 0.4% | 0.3% | 0.3% | 0.0% | 5.6% | 4.7% | 0.6% | 0.0% | 33.6% | 18.3% | 45.5% | 14.6% |

aNot mutually exclusive; bConcomitant = 1) time between therapy class prescriptions in pre- and post-index of 120 days or less, with overlap on index or 2) with prescription on the index date.

*s* = Data suppressed in Canada due to patient count less than 5 in compliance with Canadian privacy legislation.

*DULA* dulaglutide, *exBID* exenatide twice daily, *exQW* exenatide once weekly, *LIXI* lixisenatide, *LIRA* liraglutide