

SUPPLEMENTARY DATA

| | 2013, 2 nd half | 2014, 1 st half | 2014, 2 nd half | 2015, 1 st half | 2015, 2 nd half | 2016, 1 st half | 2016, 2 nd half | 2017, 1 st half | 2017, 2 nd half | 2018, 1 st half |
|--------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Number of patients | 3,961 | 5,885 | 9,497 | 11,330 | 8,769 | 8,979 | 8,294 | 11,392 | 10,693 | 11,296 |
| Female | 1,708 (43.1) | 2,488 (42.3) | 4,039 (42.5) | 4,740 (41.8) | 3,773 (43.0) | 3,818 (42.5) | 3,628 (43.7) | 4,779 (42.0) | 4,524 (42.3) | 4,769 (42.2) |
| Age (mean, SD) | 55.7 (9.8) | 55.5 (9.9) | 55.6 (9.8) | 55.6 (10.0) | 55.7 (10.2) | 55.6 (10.1) | 55.7 (10.2) | 55.7 (10.2) | 56.0 (10.3) | 55.8 (10.3) |
| Antidiabetic therapy | | | | | | | | | | |
| Metformin | 3,015 (76.1) | 4,719 (80.2) | 7,693 (81.0) | 9,086 (80.2) | 7,086 (80.8) | 7,178 (79.9) | 6,498 (78.3) | 8,837 (77.6) | 7,952 (74.4) | 8,855 (78.4) |
| Insulin | 1,214 (30.6) | 1,700 (28.9) | 2,764 (29.1) | 3,008 (26.5) | 2,065 (23.6) | 2,055 (22.9) | 1,825 (22.0) | 2,659 (23.3) | 2,375 (22.2) | 2,554 (22.6) |
| Number of DM drugs | 2.4 (1.1) | 2.3 (1.1) | 2.2 (1.1) | 2.1 (1.1) | 2.0 (1.1) | 2.0 (1.1) | 2.0 (1.1) | 1.9 (1.1) | 1.9 (1.1) | 1.9 (1.1) |
| Therapy naïve | 179 (4.5) | 216 (3.7) | 414 (4.4) | 617 (5.4) | 557 (6.4) | 606 (6.8) | 704 (8.5) | 958 (8.4) | 1,054 (9.9) | 821 (7.3) |
| A1c (mean, SD) ^b | 8.7 (1.8) | 8.8 (1.7) | 8.7 (1.8) | 8.8 (1.8) | 8.8 (1.8) | 8.9 (1.8) | 8.8 (1.8) | 8.9 (1.8) | 8.7 (1.8) | 8.8 (1.8) |
| eGFR (mean, SD) ^b | 93.4 (24.1) | 94.9 (22.5) | 95.0 (22.3) | 94.2 (23.3) | 94.8 (23.1) | 94.0 (23.4) | 94.2 (24.1) | 94.6 (23.2) | 94.3 (23.6) | 93.8 (23.7) |
| Cardiovascular severity | | | | | | | | | | |
| MI or Stroke | 229 (5.8) | 353 (6.0) | 561 (5.9) | 684 (6.0) | 544 (6.2) | 612 (6.8) | 530 (6.4) | 825 (7.2) | 858 (8.0) | 983 (8.7) |
| Heart Failure | 156 (3.9) | 164 (2.8) | 305 (3.2) | 372 (3.3) | 301 (3.4) | 329 (3.7) | 314 (3.8) | 508 (4.5) | 547 (5.1) | 624 (5.5) |
| MI, stroke, or Heart Failure | 348 (8.8) | 463 (7.9) | 776 (8.2) | 957 (8.4) | 750 (8.6) | 825 (9.2) | 740 (8.9) | 1,167 (10.2) | 1,212 (11.3) | 1,378 (12.2) |
| Prescriber | | | | | | | | | | |
| Cardiologist | 13 (0.3) | 25 (0.4) | 44 (0.5) | 37 (0.3) | 45 (0.5) | 40 (0.5) | 43 (0.5) | 83 (0.7) | 110 (1.0) | 122 (1.1) |
| Endocrinologist | 1,091 (27.5) | 1,344 (22.8) | 1,815 (19.1) | 1,946 (17.2) | 1,317 (15.0) | 1,455 (16.2) | 1,277 (15.4) | 1,692 (14.8) | 1,648 (15.4) | 1,753 (15.5) |
| Internal Medicine | 2,216 (55.9) | 3,439 (58.4) | 5,872 (61.8) | 7,107 (62.7) | 5,580 (63.6) | 5,442 (60.6) | 4,950 (59.7) | 6,989 (61.3) | 6,431 (60.1) | 6,650 (58.9) |
| NP or PA | 389 (9.8) | 680 (11.6) | 1,142 (12.0) | 1,528 (13.5) | 1,285 (14.7) | 1,441 (16.1) | 1,439 (17.3) | 1,999 (17.5) | 1,835 (17.2) | 2,024 (17.9) |
| Other physician | 257 (6.5) | 407 (6.9) | 648 (6.8) | 739 (6.5) | 557 (6.3) | 619 (6.9) | 601 (7.2) | 661 (5.8) | 693 (6.5) | 757 (6.7) |

Abbreviation: A1c: Hemoglobin A1c; DM: Diabetes Mellitus; eGFR: estimated Glomerular Filtration Rate; MI: Myocardial Infarction; NP: Nurse Practitioner; PA: Physician Assistant SD: Standard Deviation;

^a Patients could contribute to more than one drug-cohort (e.g. patient could be included in the SGLT2i and the GLP1-RA cohort as long as the inclusion and exclusion criteria were met at the time of medication initiation). The prevalence of dual use of SGLT2i and GLP1-RA was as follows: over the five-year period, 783 patients initiated SGLT2i and GLP1-RA concomitantly, 8,040 patients first initiated an SGLT2i followed by GLP1-RA, and 7,767 patients initiated a GLP1-RA followed by a SGLT2i.

^b Information on A1c and eGFR was available for 48% and 50% of the patients respectively.

SUPPLEMENTARY DATA

| | 2013, 2 nd half | 2014, 1 st half | 2014, 2 nd half | 2015, 1 st half | 2015, 2 nd half | 2016, 1 st half | 2016, 2 nd half | 2017, 1 st half | 2017, 2 nd half | 2018, 1 st half |
|--------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Number of patients | 139 (39.9) | 194 (41.8) | 300 (38.7) | 364 (38.0) | 294 (39.2) | 325 (39.4) | 273 (36.9) | 466 (39.9) | 488 (40.3) | 559 (40.6) |
| Female | 61.6 (9.4) | 61.2 (9.9) | 60.7 (9.9) | 61.3 (9.4) | 61.3 (9.5) | 60.7 (9.3) | 60.8 (9.7) | 60.7 (9.0) | 61.0 (9.1) | 60.6 (8.8) |
| Age (mean, SD) | | | | | | | | | | |
| Antidiabetic therapy | | | | | | | | | | |
| Metformin | 244 (70.1) | 339 (73.2) | 592 (76.3) | 725 (75.7) | 565 (75.3) | 633 (76.8) | 556 (75.2) | 873 (74.8) | 839 (69.2) | 1,029 (74.7) |
| Insulin | 139 (39.9) | 190 (41.0) | 299 (38.5) | 363 (37.9) | 280 (37.3) | 283 (34.3) | 235 (31.7) | 417 (35.7) | 432 (35.6) | 469 (34.0) |
| Number of DM drugs | 2.4 (1.2) | 2.4 (1.1) | 2.3 (1.1) | 2.2 (1.0) | 2.2 (1.0) | 2.1 (1.0) | 2.1 (1.0) | 2.0 (1.0) | 2.0 (1.0) | 2.0 (1.0) |
| Therapy naïve | 11 (3.2) | 8 (1.8) | 29 (3.7) | 38 (4.0) | 32 (4.2) | 29 (3.6) | 39 (5.3) | 69 (5.9) | 101 (8.4) | 74 (5.4) |
| A1c (mean, SD) ^b | 8.9 (1.7) | 8.7 (1.6) | 8.7 (1.8) | 8.8 (1.6) | 8.8 (1.8) | 8.9 (1.8) | 8.8 (1.6) | 8.8 (1.7) | 8.5 (1.6) | 8.7 (1.6) |
| eGFR (mean, SD) ^b | 84.9 (25.1) | 87.1 (23.0) | 88.7 (24.3) | 89.1 (21.0) | 89.9 (21.0) | 88.9 (20.9) | 90.6 (21.8) | 89.8 (20.5) | 88.0 (21.0) | 88.6 (20.2) |
| Cardiovascular severity | | | | | | | | | | |
| MI or Stroke | 229 (65.8) | 353 (76.1) | 561 (72.3) | 684 (71.5) | 544 (72.5) | 612 (74.2) | 530 (71.6) | 825 (70.6) | 858 (70.8) | 983 (71.4) |
| Heart Failure | 156 (44.8) | 164 (35.4) | 305 (39.3) | 372 (38.9) | 301 (40.1) | 329 (39.9) | 314 (42.4) | 508 (43.5) | 547 (45.2) | 624 (45.3) |
| MI, stroke, or Heart Failure | 348 (100) | 463 (100) | 776 (100) | 957 (100) | 750 (100) | 825 (100) | 740 (100) | 1,167 (100) | 1,212 (100) | 1,378 (100) |
| Prescriber | | | | | | | | | | |
| Cardiologist | 5 (1.4) | 9 (2.0) | 10 (1.3) | 13 (1.3) | 14 (1.9) | 11 (1.3) | 11 (1.5) | 22 (1.8) | 49 (4.1) | 50 (3.6) |
| Endocrinologist | 96 (27.6) | 106 (22.9) | 172 (22.1) | 159 (16.6) | 146 (19.4) | 144 (17.5) | 127 (17.2) | 187 (16.0) | 224 (18.5) | 261 (18.9) |
| Internal Medicine | 201 (57.8) | 268 (57.9) | 461 (59.4) | 602 (62.9) | 445 (59.2) | 512 (62.1) | 442 (59.8) | 699 (59.9) | 695 (57.3) | 732 (53.1) |
| NP or PA | 33 (9.5) | 54 (11.6) | 87 (11.2) | 129 (13.5) | 111 (14.8) | 103 (12.5) | 107 (14.4) | 195 (16.7) | 169 (13.9) | 253 (18.4) |
| Other physician | 13 (3.7) | 28 (5.9) | 50 (6.4) | 58 (6.0) | 35 (4.6) | 56 (6.8) | 54 (7.3) | 68 (5.8) | 75 (6.2) | 84 (6.1) |

Abbreviation: DM: Diabetes Mellitus; NP: Nurse Practitioner; PA: Physician Assistant SD: Standard Deviation;

^a Data for select time periods are shown. See appendix for data for all periods.

^b Information on A1c and eGFR was available for 48% and 50% of the patients respectively.

SUPPLEMENTARY DATA

| | 2013, 2 nd half | 2014, 1 st half | 2014, 2 nd half | 2015, 1 st half | 2015, 2 nd half | 2016, 1 st half | 2016, 2 nd half | 2017, 1 st half | 2017, 2 nd half | 2018, 1 st half |
|--------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Number of patients | 5,066 | 4,752 | 4,131 | 4,923 | 5,840 | 6,878 | 6,678 | 9,898 | 10,537 | 12,638 |
| Female | 2,589 (51.1) | 2,386 (50.2) | 2,147 (52.0) | 2,524 (51.3) | 2,980 (51.0) | 3,584 (52.1) | 3,523 (52.7) | 5,077 (51.3) | 5,502 (52.2) | 6,289 (49.8) |
| Age (mean, SD) | 55.9 (11.2) | 55.8 (11.2) | 56.1 (11.3) | 55.8 (11.3) | 56.0 (11.4) | 55.9 (11.4) | 56.0 (11.7) | 55.9 (11.6) | 56.2 (11.7) | 56.2 (11.6) |
| Antidiabetic therapy | | | | | | | | | | |
| Metformin | 3,716 (73.3) | 3,583 (75.4) | 3,098 (75.0) | 3,644 (74.0) | 4,409 (75.5) | 5,105 (74.2) | 5,059 (75.8) | 7,267 (73.4) | 7,611 (72.2) | 9,457 (74.8) |
| Insulin | 1,494 (29.5) | 1,456 (30.7) | 1,428 (34.6) | 1,804 (36.7) | 1,995 (34.2) | 2,267 (33.0) | 2,123 (31.8) | 3,323 (33.6) | 3,370 (32.0) | 4,233 (33.5) |
| Number of DM drugs | 2.0 (1.1) | 2.0 (1.1) | 2.0 (1.1) | 2.1 (1.1) | 2.1 (1.1) | 2.0 (1.2) | 2.0 (1.1) | 2.0 (1.1) | 1.9 (1.1) | 2.0 (1.1) |
| Therapy naïve | 441 (8.7) | 371 (7.8) | 304 (7.4) | 380 (7.7) | 431 (7.4) | 623 (9.1) | 532 (8.0) | 863 (8.7) | 1,077 (10.2) | 941 (7.4) |
| A1c (mean, SD) ^b | 8.7 (1.9) | 8.9 (1.9) | 8.9 (1.9) | 8.8 (1.9) | 8.7 (1.9) | 8.8 (1.9) | 8.8 (1.9) | 8.8 (1.8) | 8.8 (1.9) | 8.8 (1.9) |
| eGFR (mean, SD) ^b | 91.6 (24.0) | 90.4 (24.9) | 89.7 (25.1) | 89.6 (24.9) | 89.1 (25.4) | 88.9 (25.4) | 88.9 (26.3) | 89.3 (25.4) | 88.6 (26.0) | 89.5 (25.5) |
| Cardiovascular severity | | | | | | | | | | |
| MI or Stroke | 351 (6.9) | 382 (8.0) | 324 (7.8) | 408 (8.3) | 418 (7.2) | 536 (7.8) | 538 (8.1) | 863 (8.7) | 992 (9.4) | 1,215 (9.6) |
| Heart Failure | 260 (5.1) | 241 (5.1) | 206 (5.0) | 281 (5.7) | 307 (5.3) | 362 (5.3) | 361 (5.4) | 667 (6.7) | 700 (6.6) | 918 (7.3) |
| MI, stroke, or Heart Failure | 531 (10.5) | 550 (11.6) | 466 (11.3) | 596 (12.1) | 643 (11.0) | 785 (11.4) | 775 (11.6) | 1,307 (13.2) | 1,451 (13.8) | 1,820 (14.4) |
| Prescriber | | | | | | | | | | |
| Cardiologist | 25 (0.5) | 18 (0.4) | 11 (0.3) | 21 (0.4) | 24 (0.4) | 27 (0.4) | 24 (0.4) | 29 (0.3) | 25 (0.2) | 40 (0.3) |
| Endocrinologist | 1,076 (21.2) | 1,016 (21.4) | 906 (21.9) | 1,076 (21.9) | 1,254 (21.5) | 1,413 (20.5) | 1,357 (20.3) | 1,789 (18.1) | 1,821 (17.3) | 2,081 (16.5) |
| Internal Medicine | 2,927 (57.8) | 2,797 (58.9) | 2,316 (56.1) | 2,720 (55.2) | 3,241 (55.5) | 3,832 (55.7) | 3,633 (54.4) | 5,606 (56.6) | 5,909 (56.1) | 7,052 (55.8) |
| NP or PA | 639 (12.6) | 620 (13.1) | 582 (14.1) | 754 (15.3) | 903 (15.5) | 1,108 (16.1) | 1,151 (17.2) | 1,865 (18.8) | 2,103 (20.0) | 2,608 (20.6) |
| Other physician | 412 (8.1) | 314 (6.6) | 326 (7.9) | 364 (7.4) | 429 (7.3) | 517 (7.5) | 538 (8.1) | 637 (6.4) | 713 (6.8) | 883 (7.0) |

Abbreviation: A1c: Hemoglobin A1c; DM: Diabetes Mellitus; eGFR: estimated Glomerular Filtration Rate; MI: Myocardial Infarction; NP: Nurse Practitioner; PA: Physician Assistant SD: Standard Deviation;

^a Patients could contribute to more than one drug-cohort (e.g. patient could be included in the SGLT2i and the GLP1-RA cohort as long as the inclusion and exclusion criteria were met at the time of medication initiation). The prevalence of dual use of SGLT2i and GLP1-RA was as follows: over the five-year period, 783 patients initiated SGLT2i and GLP1-RA concomitantly, 8,040 patients first initiated an SGLT2i followed by GLP1-RA, and 7,767 patients initiated a GLP1-RA followed by a SGLT2i.

^b Information on A1c and eGFR was available for 45% and 48% of the patients respectively.

SUPPLEMENTARY DATA

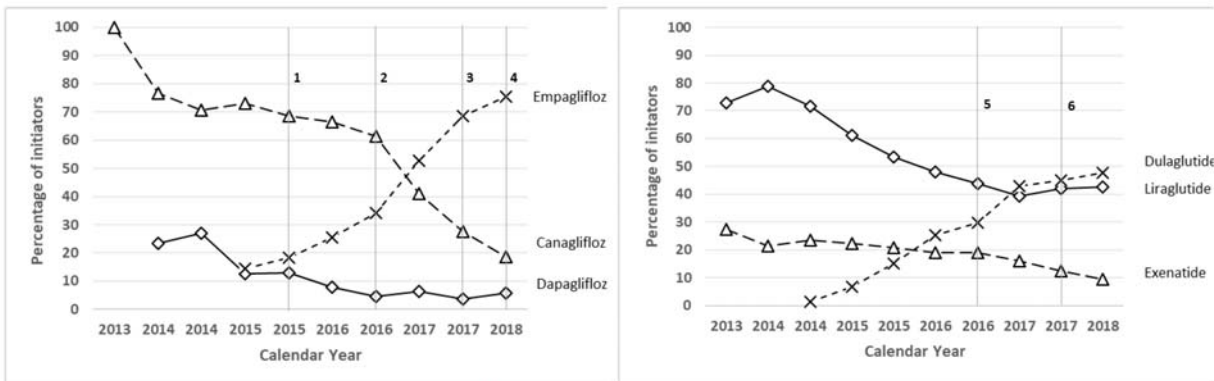
| Supplementary Table 4: Trends in the baseline characteristics of patients initiating an GLP-1RA with baseline history of MI, stroke or HF | | | | | | | | | | |
|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | 2013, 2 nd half | 2014, 1 st half | 2014, 2 nd half | 2015, 1 st half | 2015, 2 nd half | 2016, 1 st half | 2016, 2 nd half | 2017, 1 st half | 2017, 2 nd half | 2018, 1 st half |
| Number of patients | 531 | 550 | 466 | 596 | 643 | 785 | 775 | 1,307 | 1,451 | 1,820 |
| Female | 261 (49.2) | 247 (45.0) | 229 (49.2) | 279 (46.8) | 298 (46.3) | 380 (48.4) | 376 (48.4) | 624 (47.7) | 714 (49.2) | 840 (46.1) |
| Age (mean, SD) | 61.7 (10.8) | 62.4 (10.3) | 63.1 (10.5) | 62.6 (10.2) | 62.3 (10.5) | 62.1 (10.1) | 62.7 (10.1) | 62.1 (10.0) | 62.3 (9.6) | 61.9 (9.5) |
| Antidiabetic therapy | | | | | | | | | | |
| Metformin | 339 (63.8) | 368 (67.0) | 309 (66.3) | 406 (68.2) | 440 (68.4) | 525 (66.9) | 517 (66.6) | 846 (64.7) | 943 (65.0) | 1,216 (66.8) |
| Insulin | 207 (39.0) | 240 (43.7) | 229 (49.1) | 310 (52.0) | 293 (45.6) | 388 (49.5) | 370 (47.8) | 650 (49.7) | 663 (45.7) | 891 (49.0) |
| Number of DM drugs | 2.0 (1.1) | 2.1 (1.0) | 2.0 (1.1) | 2.1 (1.1) | 2.1 (1.1) | 2.1 (1.1) | 2.1 (1.1) | 2.0 (1.0) | 2.0 (1.1) | 2.1 (1.0) |
| Therapy naïve | 35 (6.6) | 32 (5.7) | 29 (6.2) | 34 (5.7) | 37 (5.7) | 45 (5.8) | 45 (5.8) | 77 (5.9) | 136 (9.3) | 98 (5.4) |
| A1c (mean, SD) ^b | 8.5 (1.9) | 8.8 (1.8) | 8.7 (1.9) | 8.7 (1.9) | 8.7 (2.0) | 8.7 (1.8) | 8.8 (1.7) | 8.8 (1.7) | 8.7 (1.7) | 8.8 (1.7) |
| eGFR (mean, SD) ^b | 83.8 (25.5) | 80.6 (26.9) | 81.2 (24.1) | 79.2 (25.1) | 80.2 (26.3) | 79.6 (24.5) | 80.5 (25.7) | 81.8 (23.8) | 80.0 (24.1) | 82.0 (23.8) |
| Cardiovascular severity | | | | | | | | | | |
| MI or Stroke | 351 (66.1) | 382 (69.6) | 324 (69.5) | 408 (68.4) | 418 (65.0) | 536 (68.3) | 538 (69.4) | 863 (66.0) | 992 (68.4) | 1,215 (66.8) |
| Heart Failure | 260 (49.0) | 241 (43.8) | 206 (44.1) | 281 (47.2) | 307 (47.8) | 362 (46.1) | 361 (46.6) | 667 (51.0) | 700 (48.2) | 918 (50.4) |
| MI, stroke, or Heart Failure | 531 (100) | 550 (100) | 466 (100) | 596 (100) | 643 (100) | 785 (100) | 775 (100) | 1,307 (100) | 1,451 (100) | 1,820 (100) |
| Prescriber | | | | | | | | | | |
| Cardiologist | 8 (1.5) | 10 (1.9) | 5 (1.1) | 3 (0.4) | 9 (1.4) | 6 (0.7) | 5 (0.6) | 6 (0.4) | 7 (0.5) | 14 (0.8) |
| Endocrinologist | 98 (18.5) | 107 (19.5) | 103 (22.2) | 138 (23.1) | 168 (26.2) | 171 (21.8) | 150 (19.4) | 244 (18.6) | 265 (18.3) | 351 (19.3) |
| Internal Medicine | 336 (63.3) | 331 (60.3) | 264 (56.6) | 335 (56.2) | 344 (53.5) | 442 (56.3) | 421 (54.3) | 737 (56.4) | 815 (56.2) | 991 (54.4) |
| NP or PA | 49 (9.2) | 74 (13.4) | 59 (12.7) | 83 (13.9) | 80 (12.5) | 116 (14.7) | 140 (18.1) | 245 (18.7) | 268 (18.5) | 337 (18.5) |
| Other physician | 40 (7.5) | 30 (5.4) | 35 (7.4) | 41 (6.9) | 41 (6.4) | 51 (6.5) | 61 (7.9) | 78 (6.0) | 98 (6.8) | 134 (7.3) |
| Abbreviation: A1c: Hemoglobin A1c; DM: Diabetes Mellitus; eGFR: estimated Glomerular Filtration Rate; MI: Myocardial Infarction; NP: Nurse Practitioner; PA: Physician Assistant SD: Standard Deviation; | | | | | | | | | | |
| ^a Data for select time periods are shown. See appendix for data for all periods. | | | | | | | | | | |
| ^b Information on A1c and eGFR was available for 48% and 50% of the patients respectively. | | | | | | | | | | |

SUPPLEMENTARY DATA

| | 2013, 2 nd half | 2014, 1 st half | 2014, 2 nd half | 2015, 1 st half | 2015, 2 nd half | 2016, 1 st half | 2016, 2 nd half | 2017, 1 st half | 2017, 2 nd half | 2018, 1 st half |
|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Number of patients | 33,222 | 30,934 | 27,048 | 28,558 | 25,106 | 29,196 | 25,893 | 34,696 | 36,695 | 36,298 |
| Female | 15,109 (45.5) | 13,701 (44.3) | 12,358 (45.7) | 12,712 (44.5) | 11,312 (45.1) | 13,204 (45.2) | 11,851 (45.8) | 16,075 (46.3) | 17,203 (46.9) | 16,390 (45.2) |
| Age (mean, SD) | 61.0 (12.8) | 60.8 (12.8) | 61.0 (12.9) | 60.8 (12.7) | 61.0 (12.9) | 60.8 (12.9) | 61.0 (12.9) | 60.7 (12.8) | 61.2 (12.9) | 60.9 (12.7) |
| Antidiabetic therapy | | | | | | | | | | |
| Metformin | 21,173 (63.7) | 20,381 (65.9) | 18,453 (68.2) | 19,570 (68.5) | 17,502 (69.7) | 19,923 (68.2) | 17,995 (69.5) | 24,069 (69.4) | 23,468 (64.0) | 25,780 (71.0) |
| Insulin | 3,770 (11.3) | 3,511 (11.4) | 3,218 (11.9) | 3,530 (12.4) | 3,114 (12.4) | 3,425 (11.7) | 3,128 (12.1) | 4,481 (12.9) | 4,423 (12.1) | 4,764 (13.1) |
| Number of DM drugs | 1.1 (0.9) | 1.1 (0.9) | 1.2 (0.9) | 1.2 (0.9) | 1.2 (0.9) | 1.2 (0.9) | 1.2 (0.9) | 1.2 (0.9) | 1.1 (0.9) | 1.3 (0.9) |
| Therapy naïve | 8,143 (24.5) | 7,277 (23.5) | 5,730 (21.2) | 6,077 (21.3) | 5,009 (20.0) | 6,194 (21.2) | 5,253 (20.3) | 6,770 (19.5) | 9,331 (25.4) | 6,490 (17.9) |
| A1c (mean, SD) ^b | 8.5 (1.9) | 8.6 (1.9) | 8.6 (1.9) | 8.6 (1.9) | 8.6 (1.9) | 8.6 (1.9) | 8.6 (1.8) | 8.7 (1.9) | 8.5 (1.9) | 8.7 (1.9) |
| eGFR (mean, SD) ^b | 87.4 (25.7) | 87.3 (25.8) | 86.5 (26.2) | 86.8 (26.0) | 86.4 (25.4) | 86.7 (25.7) | 86.7 (25.7) | 86.6 (25.9) | 85.9 (25.9) | 86.5 (25.9) |
| Cardiovascular severity | | | | | | | | | | |
| MI or Stroke | 3,206 (9.7) | 3,099 (10.0) | 2,558 (9.5) | 2,798 (9.8) | 2,484 (9.9) | 2,824 (9.7) | 2,384 (9.2) | 3,431 (9.9) | 3,583 (9.8) | 3,833 (10.6) |
| Heart Failure | 2,066 (6.2) | 1,992 (6.4) | 1,652 (6.1) | 1,859 (6.5) | 1,604 (6.4) | 1,878 (6.4) | 1,627 (6.3) | 2,422 (7.0) | 2,690 (7.3) | 2,763 (7.6) |
| MI, stroke, or Heart Failure | 4,592 (13.8) | 4,366 (14.1) | 3,623 (13.4) | 4,000 (14.0) | 3,524 (14.0) | 4,071 (13.9) | 3,442 (13.3) | 5,000 (14.4) | 5,323 (14.5) | 5,559 (15.3) |
| Prescriber | | | | | | | | | | |
| Cardiologist | 366 (1.1) | 332 (1.1) | 294 (1.1) | 285 (1.0) | 221 (0.9) | 285 (1.0) | 213 (0.8) | 260 (0.7) | 256 (0.7) | 226 (0.6) |
| Endocrinologist | 3,106 (9.4) | 2,935 (9.5) | 2,452 (9.1) | 2,467 (8.6) | 2,329 (9.3) | 2,519 (8.6) | 2,147 (8.3) | 2,648 (7.6) | 2,590 (7.1) | 2,709 (7.5) |
| Internal Medicine | 25,005 (75.3) | 23,219 (75.1) | 20,199 (74.7) | 21,435 (75.1) | 18,582 (74.0) | 21,461 (73.5) | 18,956 (73.2) | 25,340 (73.0) | 26,877 (73.2) | 26,107 (71.9) |
| NP or PA | 3,867 (11.6) | 3,904 (12.6) | 3,636 (13.4) | 3,962 (13.9) | 3,579 (14.3) | 4,461 (15.3) | 4,033 (15.6) | 5,930 (17.1) | 6,326 (17.2) | 6,211 (17.1) |
| Other physician | 2,072 (6.2) | 1,775 (5.7) | 1,553 (5.7) | 1,539 (5.4) | 1,396 (5.6) | 1,609 (5.5) | 1,528 (5.9) | 1,769 (5.1) | 1,931 (5.3) | 2,064 (5.7) |
| Abbreviation: A1c: Hemoglobin A1c; DM: Diabetes Mellitus; eGFR: estimated Glomerular Filtration Rate; MI: Myocardial Infarction; NP: Nurse Practitioner; PA: Physician Assistant SD: Standard Deviation; | | | | | | | | | | |
| ^a Patients could contribute to more than one drug-cohort as long as the inclusion and exclusion criteria were met at the time of medication initiation. For instance, 26,867 patients were included in the analysis for the SGLT2i cohort and this cohort, and 25,328 were included in the GLP-RA cohort and this cohort. | | | | | | | | | | |
| ^b Information on A1c and eGFR was available for 46% and 49% of the patients respectively. | | | | | | | | | | |

SUPPLEMENTARY DATA

Supplementary Figure 1. Changes in prescribing patterns for SGLT2i and GLP-1RA in patients with history of MI, stroke, or HF



SGLT2i: Sodium glucose cotransporter 2 inhibitors; GLP-1RA: Glucagon-like peptide-1 receptor agonist; MI: myocardial infarction; HF: heart failure.

Figure 1 description: The figure describes the proportion of patients initiating individual SGLT2 inhibitors between July 2013 to June 2018.

1 - EMPA-REG is published showing benefits in composite of CVD death, nonfatal stroke and MI.

2 - Empagliflozin receives a new FDA indication for reduction in cardiovascular death in patients with established cardiovascular disease; 3 - CANVAS is published showing a benefit on the composite of CVD death, nonfatal, stroke and MI but the trial also found an increase in the risk of amputations resulting in a black box warning for canagliflozin

4 - 2018 American Diabetes Association guidelines recommend an SGLT2 inhibitor (with a focus on empagliflozin) as 2nd line therapy in patients with established cardiovascular disease.

5- LEADER is published showing benefits in cardiovascular death, and nonfatal stroke and MI for liraglutide. SUSTAIN-6 is also published showing benefit in cardiovascular death, and nonfatal stroke and MI.

6- Liraglutide receives a new indication for reduction in cardiovascular events in patients with established cardiovascular disease; EXSCEL is published showing no cardiovascular benefit for exenatide