SUPPLEMENTARY MATERIAL

Table S1: unmatched sample descriptives

Variable	Sulfonylurea	Vildagliptin (Galvus®)
N	16321	4481
Age (years)		
Mean (SD)	69.0 (11.2)	64.2 (10.8)
Min	40	40
Max	103	95
Sex (N,%)		
Male	8346 (51.1%)	2614 (58.3%)
Female	7975 (48.9%)	1867 (41.7%)
Line of therapy		
1st line	7923 (48.5%)	1269 (28.3%)
2nd line	6545 (40.1%)	2056 (45.9%)
3rd line	1489 (9.1%)	875 (19.5%)
4th or higher line	278 (1.7%)	223 (4.9%)
HbA1C		
N (%) available	11349	3258
Mean, SD	7.61 (1.48)	7.59 (1.46)
Median	7.3	7.3
Min	3.1	4.6
Max	17.7	19.0
Duration of disease (years)		
Mean, SD	2.49 (3.46)	3.48 (3.75)
Min	0	0
Max	20.9	20.4
Duration of treatment (years)		
Mean, SD	3.90 (1.97)	8.33 (2.75)
Min	0	0
Max	61.9	67.0
Previous hypoglyaemic event (N,%)	83 (0.51%)	24 (0.54%)

Table S2: unmatched samples clinical characteristics

Characteristic	Sulfonylurea	Vildagliptin (Galvus®)
Co-prescribed medications (N,%)		
Antihypertensives (C03, C07, C08, C09)	13911 (85.2%)	3604 (80.4%)
Lipid modifying agents (C10)	7488 (45.9%)	2081 (46.4%)
Other DPP4 (A10N excl Vidagliptin)	2950 (18.1%)	146 (3.3%)
GLP-1 (A10S)	460 (2.8%)	94 (2.1%)
Metformin (A10J)	10452 (64.0%)	3944 (88.0%)
SGLT II (A10P)	70 (0.4%)	73 (1.6%)
Alpha glucosidase inhibitors (A10L)	340 (2.1%)	41 (0.9%)
Glinids (A10M)	298 (1.8%)	171 (3.8%)
Glitazone (TZD) (A10K)	614 (3.8%)	67 (1.5%)
Insulin (A10C)	2309 (14.1%)	470 (10.5%)
Co-morbid conditions (N,%)		
Hypertension (I10)	13949 (85.5%)	3791 (84.6%)
Peripheral vascular disease (I739, E115, E145)	2838 (17.4%)	582 (13.0%)
Hyperlipidemia (E78)	9428 (57.8%)	2724 (60.8%)
Prior stroke (I63,64)	752 (4.6%)	153 (3.4%)
Myocardial infarction (I21-23, I252)	983 (6.0%)	287 (6.4%)
Ischemic heart disease (I24,25)	5309 (32.5%)	1124 (25.1%)
Angina pectoris (I20)	1368 (8.4%)	340 (7.6%)
Heart insufficiency (N18, N19)	2635 (16.1%)	596 (13.3%)
Depression (F32, 33)	4112 (25.2%)	1041 (23.2%)
Dementia (F01, F03, G30)	1838 (11.3%)	204 (4.6%)
Charlson Comorbidity Score		
Mean (SD)	2.28 (1.58)	2.34 (1.67)
Min	0	0
Max	20	13

Table S3: events (unmatched samples)

Event	Sulfonylurea	Vildagliptin (Galvus®)
Study population	16321	4481
Retinopathy		
Patients with no retinopathy prior to index date	15962	4359
Retinopathy during all available follow up period (absolute)	545	87
Retinopathy during all available follow up period (%)	3.4%	2.0%
Time to first retinopathy diagnosis for each group	8.57	5.12
Nephropathy		
Patients with no nephropathy prior to index date	15824	4291
Nephropathy during all available follow up period (absolute)	963	229
Nephropathy during all available follow up period (%)	6.1%	5.3%
Time to first Nephropathy diagnosis for each group	9.47	5.78
Neuropathy		
Patients with no Neuropathy prior to index date	14959	4014
Neuropathy during all available follow up period (absolute)	2036	390
Neuropathy during all available follow up period (%)	13.6%	9.7%
Time to first Neuropathy diagnosis for each group	8.42	5.07
Diabetic Foot Syndrome (DFS)		
Patients with no DFS prior to index date	16090	4400
DFS during all available follow up period (absolute)	745	127
DFS during all available follow up period (%)	4.6%	2.9%
Time to first DFS diagnosis for each group	9.02	6.03
Combined (any event)		
Patients with no event prior to index date	14189	3749
Event during all available follow up period (absolute)	2963	582
Event during all available follow up period (%)	20.9%	15.5%
Time to first event diagnosis for each group	8.28	5.13