

Supplementary table 1. Effect of additionally adjusting for parity and family history of cervical cancer in a smaller subset of the study population. Hazard ratios and 95% confidence intervals

Main outcome definition	At risk	Cohort comparison	HR[†]	HR[‡]
CIN 3*	Individuals with no history of CIN 3 or invasive cervical cancer	TNFI vs. Bio-naïve RA	1.42 (0.94-2.13)	1.43 (0.95-2.15)
Invasive cervical cancer	Individuals with no history of invasive cervical cancer at start of follow-up	TNFI vs. Bio-naïve RA	1.89 (0.88-4.07)	1.88 (0.88-4.05)

*=CIN 3 only includes cases identified in the cancer register

†=Stratified on decade of birth and adjusted for educational level, co-morbidities, marital status and total days spent in hospital during last 5 yrs, also implicitly adjusted for age since age was used as the model's time scale

‡=Stratified on decade of birth and adjusted for family history of cervical cancer, parity, educational level, co-morbidities, marital status and total days spent in hospital during last 5 yrs, also implicitly adjusted for age since age was used as the model's time scale

Supplementary table 2. Effect of additionally adjusting for any invasive cancer prior to start of follow-up, number of persons, crude incidence, average follow-up time and hazard ratios for the different cervical outcomes under study.

Outcome definition	Cohort	Number of patients at risk	Mean follow-up	Number of events	Crude incidence per 100,000 pys	HR*	HR*
First screening with normal result	TNFi	9072	3.29	4362	14 599	1.02 (0.98-1.05)	
	Bio-naïve RA	33 253	3.57	10 958	9224	REF	1.08 (1.06-1.10)
	Gen pop	287 602	4.18	114 943	9556		REF
CIN 1	TNFi	8943	6.10	52	95.3	1.22 (0.86-1.74)	
	Bio-naïve RA	32 947	5.26	99	57.1	REF	1.53 (1.23-1.89)
	Gen pop	285 232	6.66	852	44.8		REF
CIN 2+	TNFi	9018	6.11	75	136.0	1.36 (1.01-1.82)	
	Bio-naïve RA	33 130	5.27	137	78.5	REF	1.39 (1.16-1.66)
	Gen pop	286 731	6.67	1332	69.7		REF
Invasive cervical cancer, overall	TNFi	9629	6.15	14	23.7	2.12 (1.05-4.27)	
	Bio-naïve RA	34 984	5.27	25	13.6	REF	1.09 (0.72-1.66)
	Gen pop	300 331	6.68	275	13.7		REF

*=Stratified on decade of birth and adjusted for previous invasive cancer, educational level, number of cervical screens past five years, co-morbidities, marital status and total days spent in hospital during last 5 yrs, also implicitly adjusted for age since age was used as the model's time scale

Supplementary table 3. Number of persons, crude incidence, and average follow-up time for the different cervical outcomes under study, analyses restricted to those under 60 years of age at start of follow-up, also censored at their 60th birthday.

Outcome definition	Cohort	Number of patients at risk	Mean follow-up	Number of events	Crude incidence per 100,000 pys	HR*	HR*
First screening with normal result	TNFi	5627	2.13	3489	29 081	0.98 (0.94-1.02)	
	Bio-naïve RA	14 638	1.80	8076	30 696	REF	1.04 (1.02-1.07)
	Gen pop	133 489	2.14	86 598	30 278		REF
CIN 1	TNFi	5520	5.03	43	154.8	1.10 (0.75-1.62)	
	Bio-naïve RA	14 410	3.98	84	146.5	REF	1.53 (1.21-1.92)
	Gen pop	131 637	5.33	725	103.4		REF
CIN 2+	TNFi	5578	5.05	63	223.4	1.22 (0.89-1.67)	
	Bio-naïve RA	14 539	3.99	115	198.2	REF	1.39 (1.14-1.69)
	Gen pop	132 759	5.34	1137	160.4		REF
Invasive cervical cancer, overall	TNFi	5975	5.08	4	13.2	†	
	Bio-naïve RA	15 486	4.00	5	8.1	REF	0.61 (0.25-1.52)
	Gen pop	140 269	5.36	106	14.1		REF

* = Stratified on decade of birth and adjusted for educational level, number of cervical screens past five years, co-morbidities, marital status and total days spent in hospital during last 5 yrs, also implicitly adjusted for age since age was used as the model's time scale

†= Not computed due to low number of events

Supplementary table 4. Stage at diagnosis of invasive cervical cancer according to FIGO classification, for each cohort, n (%).

Cohort	Stage 0	Stage I	Stage II	Stage III	Stage IV	Missing
TNFi initiators	0	6 (43%)	2 (14%)	0	1 (7%)	5 (36%)
Bio-naïve RA	0	9 (36%)	3 (12%)	5 (20%)	1 (4%)	7 (28%)
General population	4 (1%)	100 (34%)	44 (15%)	31 (10%)	19 (6%)	98 (33%)