Table 1. Mortality rates and incidence rate ratios

	PsA cases			Population controls			
	Number of deaths	Person-years at risk	Mortality rate*	Number of deaths	Person-years at risk	Mortality rate*	Incidence rate ratio (95%CI)
Overall	3 121	268 402	11.6	12 884	1 302 250	9.9	1.18 (1.13-1.22)
Males	1 459	120 517	12.1	6 468	580 285	11.1	1.09 (1.03-1.15)
Females	1 662	147 886	11.2	6 416	721 966	8.9	1.27 (1.20-1.34)
Longer disease duration	1 943	139 379	13.9	7 459	670 174	11.1	1.25 (1.19-1.32)
Shorter disease duration	1 178	129 023	9.1	5 425	632 077	8.6	1.06 (1.00-1.13)
Age intervals (years)							
<40	18	33 568	0.5	98	163 278	0.6	0.89 (0.54-1.48)
40-49	90	50 552	1.8	322	246 955	1.3	1.37 (1.08-1.73)
50-59	280	65 820	4.3	1 131	321 730	3.5	1.21 (1.06-1.38)
60-69	723	70 224	10.3	3 132	341 587	9.2	1.12 (1.04-1.22)
70-79	960	37 232	25.8	4 160	178 909	23.3	1.11 (1.03-1.19)
≥80	1 050	11 007	95.4	4 041	49 791	81.2	1.18 (1.10-1.26)

* Per 1000 person-years.

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OP0219 THE ASSOCIATION OF PSORIATIC ARTHRITIS WITH ALL-CAUSE MORTALITY AND LEADING CAUSES OF DEATH IN PSORIATIC ARTHRITIS

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Background: Data on the association between PsA and mortality remains conflicting as it has been hampered by small sample size with few events and the potential for confounders of selection and severity biases from clinic-based studies.

Objectives: To examine the association between PsA and all-cause mortality in a cohort of PsA patients and matched controls, using data from a population-based large medical record database.

Methods: Patients with newly diagnosis of PsA between January 1st, 2003 and December 31st, 2018 from the Clalit Health database were identified. 4 controls without PsA were selected and matched to cases of PsA by age (within 1 year), sex, ethnicity (Jewish vs. non-Jewish), and index date. The two groups were followed from the index date until the first occurrence of death from any cause or end of follow-up (June 30, 2019). Data on mortality and on the immediate cause of death was based on the Notification of Death form legally required by the Israeli Ministry of the Interior for every deceased person in the country. Demographic data including age, sex, ethnicity (Jewish or Arab), and socioeconomic status (SES) at inception were retrieved from the CHS database. Data regarding tobacco use (ever), obesity, body mass index, diabetes mellitus, hyperlipidemia, hypertension, ischemic heart disease, prior cerebrovascular accident, congestive heart failure, chronic renal failure, chronic obstructive pulmonary disease, cirrhosis, prior malignancy, psoriasis, and the concomitant use of glucocorticosteroids,

conventional and biologic disease-modifying anti-rheumatic drugs (cDMARDs and bDMARDs, respectively) were extracted from the database.

We estimated the attributable fraction of the various causes of death in PsA patients and compared it to the proportionate mortality rate (PMR) of the leading causes of death in Israel during 2014-2016 based on a recently published report by the Central Bureau of Statistics. Cox proportional hazard regression models were used to estimate the crude and the multivariate adjusted hazard ratio (HR) for the association between PsA and all-cause mortality, as well as for factors associated with mortality within the PsA group.

Results: A total of 5275 PsA patients were identified between 2003 and 2018 and where matched to 21,011 controls based on age, sex, and ethnicity. The mean age was 51.7 ± 15.4 years of whom 53% were females. More individuals in the PsA group were smokers, obese, with diabetes, hypertension, and dyslipidemia, as well as with a history of ischemic heart disease, cerebrovascular disease, congestive heart failure, chronic obstructive pulmonary disease, chronic renal failure and cirrhosis than patients in the control group, and 38.2% of PsA patients were on b-DMARDs. Overall 471 (8.9%) patients died in the PsA group compared to 1,668 (7.9%) in the control group during a mean follow-up of 7.2 ± 4.4 years. The crude HR for the association of PsA and all-cause mortality was 1.16 (95% CI, 1.042-1.29). However, the association was not significant on multivariate analysis with HR of 1.096 (95% CI, 0.977-1.229).

In PsA patients, malignancy was the leading cause of death, constituting 26% of all deaths, followed by ischemic heart disease 15.8%, diabetes 6.2%, cerebrovascular diseases 5.5% and septicemia 5.5%, in keeping with the order of the leading causes of death in the general population of Israel during 2014-2016 as recently reported by the Central Bureau of Statistics.

On multivariate model Cox regression analysis, male sex, increased body mass index, increased Charlson comorbidity index scores and history of hospitalization in a year prior to death were associated with higher mortality, whereas treatment bDMARDs and cDMARDs were associated with a lower relative risk of death.

Conclusion: No clinically relevant increase in mortality rate was observed in PsA patients from the period 2003-2018. The most common causes of specific proportionate mortality rates in our cohort were similar to those in the general population.

Disclosure of Interests: None declared

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OP0220 SECULAR TRENDS IN BASELINE CHARACTERISTICS, TREATMENT RETENTION AND RESPONSE RATES IN 17453 BIONAÏVE PSORIATIC ARTHRITIS PATIENTS INITIATING TNF – RESULTS FROM THE EUROSPA COLLABORATION

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Table 1. Secular trends in baseline characteristics, treatment retention, remission and response rates in European PsA patients initiating a 1st TNFi

Baseline characteristics	Group A (1999–2008)			Group B (2009–2014)			Group C (2015–2018)		
Age, median (IQR)	62 (54–72)			58 (49–67)			54 (45–62)		
Male, %	51			48			47		
Years since diagnosis, median (IQR)	5 (2–10)			3 (1–9)			3 (1–8)		
Smokers, %	16			17			17		
DAS28, median (IQR)	4.6 (3.7–5.3)			4.3 (3.4–5.1)			4.0 (3.2–4.8)		
DAPSA28, median (IQR)	29.9 (19.3–41.8)			25.7 (17.2–38.1)			24.0 (16.1–35.5)		
CDAI, median (IQR)	21.8 (14.0–31.1)			20.0 (13.0–29.0)			18.6 (12.7–26.1)		
TNFi drug, % (Adalimumab / Etanercept / Infliximab / Certolizumab / Golimumab)	27 / 43 / 30 / 0 / 0			36 / 31 / 14 / 5 / 14			21 / 40 / 21 / 8 / 10		
Follow up	6 months			12 months			24 months		
	Gr A	Gr B	Gr C	Gr A	Gr B	Gr C	Gr A	Gr B	Gr C
Retention rates, % (95% CI)	88 (87–89)	83 (82–84)	84 (83–85)	79 (78–80)	72 (71–73)	72 (71–73)	68 (67–69)	60 (59–61)	60 (59–62)
DAS28, median (IQR)	2.7 (1.9–3.6)	2.4 (1.7–3.4)	2.3 (1.7–3.2)	2.5 (1.8–3.4)	2.2 (1.6–3.1)	2.1 (1.6–2.9)	2.1 (1.6–3.1)	2.0 (1.6–2.9)	1.9 (1.5–2.6)
DAPSA28, median (IQR)	10.6 (4.8–20.0)	9.5 (3.9–18.3)	8.7 (3.6–15.9)	9.1 (4.1–17.8)	7.7 (3.1–15.4)	7.6 (2.9–14.4)	6.7 (2.7–13.7)	6.6 (2.7–13.5)	5.9 (2.4–11.8)
CDAI, median (IQR)	7.8 (3.0–15.2)	8.0 (3.0–15.0)	6.4 (2.6–12.2)	6.4 (2.5–13.0)	6.2 (2.5–12.1)	5.8 (2.2–11.4)	5.0 (2.0–11.0)	5.5 (2.0–11.2)	5.0 (2.0–9.0)
DAS28 remission, %, c/L	47 / 42	55 / 46	61 / 51	53 / 43	62 / 45	66 / 48	64 / 42	68 / 37	75 / 41
DAPSA28 remission, %, c/L	22 / 19	26 / 22	28 / 23	25 / 20	31 / 22	32 / 23	36 / 23	34 / 19	38 / 21
CDAI remission, %, c/L	23 / 21	23 / 19	26 / 22	27 / 21	27 / 20	29 / 21	34 / 22	31 / 17	35 / 19
ACR50 response, %, c/L	26 / 23	22 / 18	24 / 20	27 / 22	23 / 17	21 / 15	23 / 15	18 / 10	14 / 8

Gr, Group; c/L, crude/LUNDEX.

Background: Knowledge of changes over time in baseline characteristics and tumor necrosis factor inhibitor (TNFi) response in bionative psoriatic arthritis (PsA) patients treated in routine care is limited.

Objectives: To investigate secular trends in baseline characteristics and retention, remission and response rates in PsA patients initiating a first TNFi.

Methods: Prospectively collected data on bionative PsA patients starting TNFi in routine care from 15 European countries were pooled. According to year of TNFi initiation, three groups were defined a priori based on bDMARD availability: Group A (1999–2008), Group B (2009–2014) and Group C (2015–2018).

Retention rates (Kaplan-Meier), crude and LUNDEX adjusted¹ remission (Disease Activity Score (DAS28) <2.6, 28-joint Disease Activity index for PsA (DAPSA28) ≤4, Clinical Disease Activity Index (CDAI) ≤2.8) and ACR50 response rates were assessed at 6, 12 and 24 months. No statistical comparisons were made.

Results: A total of 17453 PsA patients were included (4069, 7551 and 5833 in groups A, B and C).

Patients in group A were older and had longer disease duration compared to B and C. Retention rates at 6, 12 and 24 months were highest in group A (88%/77%/64%) but differed little between B (83%/69%/55%) and C (84%/70%/56%).

Baseline disease activity was higher in group A than in B and C (DAS28: 4.6/4.3/4.0, DAPSA28: 29.9/25.7/24.0, CDAI: 21.8/20.0/18.6), and this persisted at 6 and 12 months. Crude and LUNDEX adjusted remission rates at 6 and 12 months tended to be lowest in group A, although crude/LUNDEX adjusted ACR50 response rates at all time points were highest in group A. At 24 months, disease activity and remission rates were similar in the three groups (Table).

Conclusion: Over the past 20 years, patient age, disease duration and disease activity level at the start of the first TNFi in PsA patients have decreased.

Furthermore, TNFi retention rates have decreased while remission rates have increased, especially remission rates within the first year of treatment. These findings may reflect a greater awareness of early diagnosis in PsA patients, a lowered threshold for initiating TNFi and the possibility for earlier switching in patients with inadequate treatment response.

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OP0221

TARGETED METABOLOMIC PROFILING AND PREDICTION OF CARDIOVASCULAR EVENTS: A PROSPECTIVE STUDY OF PATIENTS WITH PSORIATIC ARTHRITIS AND PSORIASIS

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Background: Psoriatic arthritis and psoriasis, collectively termed psoriatic disease (PsD), are associated with increased cardiovascular (CV) risk. Metabolites comprise biomarkers that may add predictive value over traditional CV risk factors.

Objectives: We aimed to identify metabolites associated with CV events (CVEs) and to determine whether they could improve CV risk prediction beyond traditional CV risk factors.