Comparison of Real-World On-Label Treatment Persistence in Patients with Psoriatic Arthritis Receiving Guselkumab versus Subcutaneous Tumor Necrosis Factor Inhibitors--SUPPLEMENTARY MATERIALS

Jessica A. Walsh[1], Iris Lin[2], Ruizhi Zhao[2], Natalie J. Shiff[2,3], Laura Morrison[4], Bruno Emond[4], Louise H. Yu[4], Samuel Schwartzbein[4], Patrick Lefebvre[4], Dominic Pilon[4], Soumya D. Chakravarty[2,5], Philip Mease[6,7]

[1] *University of Utah School of Medicine, Salt Lake City, UT, USA*

[2] *Janssen Scientific Affairs, LLC, a Johnson & Johnson company, Horsham, PA, USA*

[3] *Adjunct, Community Health and Epidemiology, University of Saskatchewan, Saskatoon, SK, Canada*

[4] *Analysis Group, Inc., Montreal, QC, Canada*

[5] *Drexel University College of Medicine, Philadelphia, PA, USA*

[6] *University of Washington, Seattle, WA, USA*

[7] *Swedish Medical Center and Providence St. Joseph Health, Seattle, WA, USA*

Corresponding author

Jessica A. Walsh, MD

University of Utah School of Medicine

50 North Medical Drive. Salt Lake City, Utah 84132

Phone: 1-801-581-7724; Email: Jessica.Walsh@hsc.utah.edu

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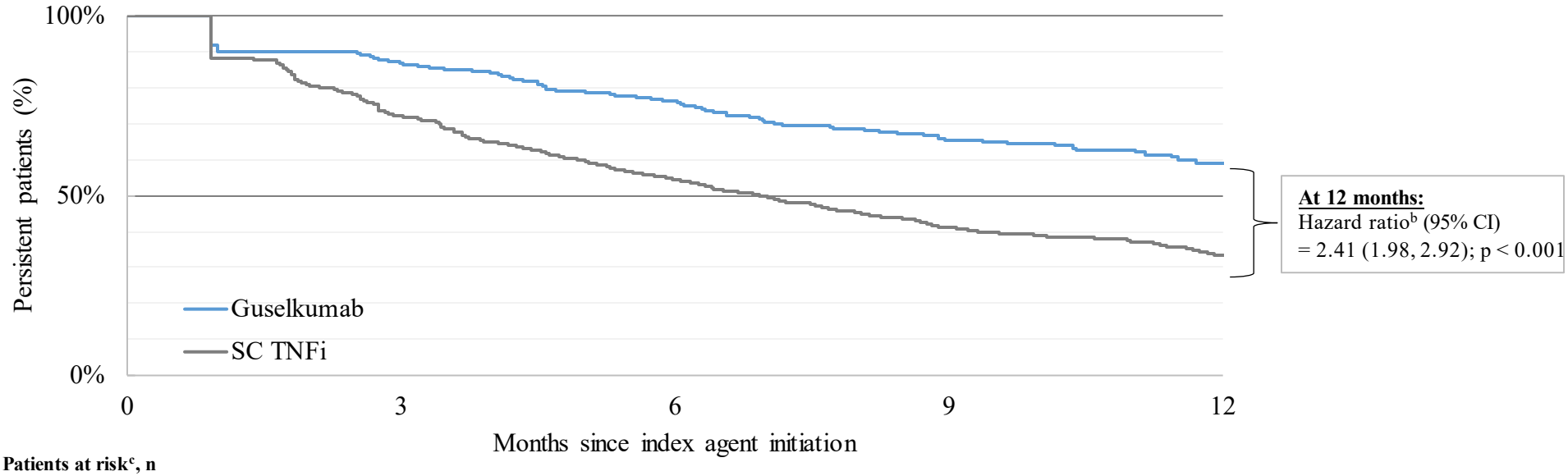
Online Resource Figure 1. On-label persistence in weighted guselkumab and SC TNFi cohorts[a]: sensitivity 1 analysis (gap of longest duration of time between administrations as per FDA label)



Patients at risk[c], n				
Guselkumab **(N = 526)**	352	251	144	76
SC TNFi **(N = 1953)**	996	685	388	242

Abbreviations: bDMARD: biologic disease-modifying anti-rheumatic drug; CI: confidence interval; FDA: Food and Drug Administration; SC: subcutaneous; TNFi: tumor necrosis factor inhibitor.

Notes:

a. Propensity score weighting based on the standardized mortality ratio weighting approach was used to adjust for differences in baseline characteristics between the guselkumab and SC TNFi cohorts. Weights were estimated using a multivariable logistic regression model. Baseline covariates included all demographic and clinical characteristics reported in Table 1, with the exception of baseline use of bDMARDs, which was included in the adjusted Cox proportional hazard models.

b. Cox proportional hazard models were used to compare risk of discontinuation between the weighted guselkumab and SC TNFi cohorts. Models were adjusted for baseline use of bDMARDs.

c. Patients at risk of having the event are patients who have not had the event and have not been lost to follow-up at that point in time.

Online Resource Table 1. On-label persistence in weighted guselkumab and SC TNFi cohorts[a]: sensitivity 1 analysis (gap of longest duration of time between administrations as per FDA label)

Cox proportional hazards model[b]	3 months	6 months	9 months	12 months
Patients at risk, n (%)[c]				
Guselkumab **(N = 526)**	352 (66.9)	251 (47.7)	144 (27.4)	76 (14.4)
SC TNFi **(N = 1953)**	996 (51.0)	685 (35.1)	388 (19.9)	242 (12.4)
Hazard ratios (95% CI)	2.73 (2.04; 3.65)	2.49 (1.98; 3.13)	2.51 (2.04; 3.07)	2.41 (1.98; 2.92)
Chi-square p-value	< 0.001*	< 0.001*	< 0.001*	< 0.001*
KM persistence, % (95% CI)				
Guselkumab	87.1 (79.6; 92.0)	76.4 (69.3; 82.0)	66.7 (59.2; 73.2)	59.2 (50.4; 67.0)
SC TNFi	72.3 (67.9; 76.1)	55.0 (49.9; 59.7)	41.5 (35.6; 47.3)	33.5 (26.6; 40.4)
Log-rank test p-value	< 0.001*	< 0.001*	< 0.001*	< 0.001*

Abbreviations: bDMARD: biologic disease-modifying anti-rheumatic drug; CI: confidence interval; FDA: Food and Drug Administration; KM: Kaplan-Meier; SC: subcutaneous; TNFi: tumor necrosis factor inhibitor.

Notes:

* Denotes statistical significance based on a threshold of $p < 0.05$.

a. Propensity score weighting based on the standardized mortality ratio weighting approach was used to adjust for differences in baseline characteristics between the guselkumab and SC TNFi cohorts. Weights were estimated using a multivariable logistic regression model. Baseline covariates included all demographic and clinical characteristics reported in Table 1, with the exception of baseline use of bDMARDs, which was included in the adjusted Cox proportional hazard models.

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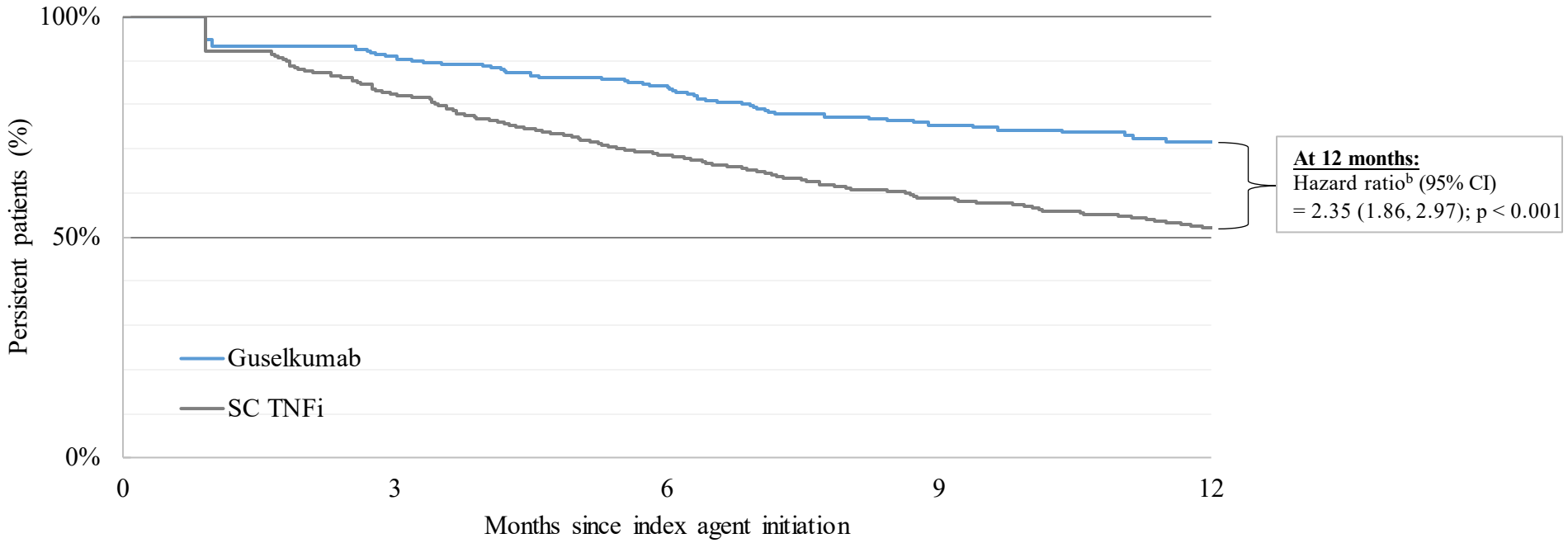
Online Resource Figure 2. On-label persistence in weighted guselkumab and SC TNFi cohorts[a]: sensitivity analysis 2 (fixed gap of 112 days)



Patients at risk[c], n

Guselkumab **(N = 526)**	368	263	155	84
SC TNFi **(N = 1953)**	1106	803	493	329

Abbreviations: bDMARD: biologic disease-modifying anti-rheumatic drug; CI: confidence interval; SC: subcutaneous; TNFi: tumor necrosis factor inhibitor.

Notes:

a. Propensity score weighting based on the standardized mortality ratio weighting approach was used to adjust for differences in baseline characteristics between the guselkumab and SC TNFi cohorts. Weights were estimated using a multivariable logistic regression model. Baseline covariates included all demographic and clinical characteristics reported in Table 1, with the exception of baseline use of bDMARDs, which was included in the adjusted Cox proportional hazard models.

b. Cox proportional hazard models were used to compare risk of discontinuation between the weighted guselkumab and SC TNFi cohorts. Models were adjusted for baseline use of bDMARDs.

c. Patients at risk of having the event are patients who have not had the event and have not been lost to follow-up at that point in time.

Online Resource Table 2. On-label persistence in weighted guselkumab and SC TNFi cohorts[a]: sensitivity 2 analysis (fixed gap of 112 days)

Cox proportional hazards model[b]	3 months	6 months	9 months	12 months
Patients at risk, n (%)[c]				
Guselkumab **(N = 526)**	368 (70.0)	263 (50.0)	155 (29.5)	84 (16.0)
SC TNFi **(N = 1953)**	1,106 (56.6)	803 (41.1)	493 (25.2)	329 (16.8)
Hazard ratios (95% CI)	2.55 (1.79; 3.63)	2.54 (1.92; 3.35)	2.38 (1.86; 3.03)	2.35 (1.86; 2.97)
Chi-square p-value	< 0.001*	< 0.001*	< 0.001*	< 0.001*
KM persistence, % (95% CI)				
Guselkumab	91.2 (82.8; 95.6)	84.1 (76.7; 89.4)	75.9 (68.3; 81.9)	71.5 (63.2; 78.3)
SC TNFi	82.6 (78.5; 86.0)	68.7 (64.1; 72.9)	58.9 (53.6; 63.8)	52.1 (46.0; 57.8)
Log-rank test p-value	< 0.001*	< 0.001*	< 0.001*	< 0.001*

Abbreviations: bDMARD: biologic disease-modifying anti-rheumatic drug; CI: confidence interval; KM: Kaplan-Meier; SC: subcutaneous; TNFi: tumor necrosis factor inhibitor.

Notes:
* Denotes statistical significance based on a threshold of $p < 0.05$.
a. Propensity score weighting based on the standardized mortality ratio weighting approach was used to adjust for differences in baseline characteristics between the guselkumab and SC TNFi cohorts. Weights were estimated using a multivariable logistic regression model. Baseline covariates included all demographic and clinical characteristics reported in Table 1, with the exception of baseline use of bDMARDs, which was included in the adjusted Cox proportional hazard models.
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Online Resource Methods: Variables included in the SMR weighting

The following covariates were included in the SMR weighting: age at index date, sex at birth, US region of residence, insurance type, Medicare Advantage enrollment, relationship of patient to the primary beneficiary, year of index date, time between latest observed PsA diagnosis to index date, baseline Quan-Charlson comorbidity index, prior conditions (i.e., diabetes, hyperlipemia, inflammatory bowel disease, osteoarthritis, peripheral vascular disease, psoriasis, uveitis), smoking, and prior medication use (i.e., non-narcotic analgesics use, corticosteroids use, opioids use).

Abbreviations: PsA: psoriatic arthritis; SMR: standardized mortality ratio; US: United States.