Study Report

P3-C1-001

Characterising the use of JAK inhibitors in Europe: a Drug Utilisation Study

29/04/2025

Version 2.0

Contents

Study title	DARWIN EU® - Characterising the use of JAK inhibitors in Europe: a Drug Utilisation Study
Study report version	V2.0
Date	29/04/2025
EU PAS number	EUPAS1000000424
Active substance	JAKi (abrocitinib, baricitinib, filgotinib, tofacitinib, upadacitinib)
Medicinal product	N/A
Research question and objectives	This study aimed to identify and characterise new JAKi users. The specific objectives were: 1. To estimate the incidence of new JAKi use, overall and for each individual JAKi ingredient. 2. To characterise new JAKi users and treatment for each individual JAKi, stratified by indication
Country(-ies) of study	Finland, Germany, Netherlands, Norway, and Spain
Author(s)	Amy Lam, Daniel Prieto-Alhambra, Xihang Chen, Edward Burn

TITLE

DARWIN EU® - Characterising the use of JAK inhibitors in Europe: a Drug Utilisation Study

1. DESCRIPTION OF STUDY TEAM

Study team role(s)	Name(s)	Organisation(s)
Principal Investigator	Amy Lam Daniel Prieto-Alhambra	University of Oxford Erasmus MC, University of Oxford
Data Scientist	Xihang Chen Edward Burn	University of Oxford
Epidemiologist	Amy Lam Annika Jödicke	University of Oxford
Clinical Domain Expert	Albert Prats-Uribe Daniel Prieto-Alhambra	University of Oxford
Study Manager	Natasha Yefimenko	Erasmus MC
Data partner name*	**Data Partner member name(s)**	**Organisation(s)**
FinOMOP-HILMO	Tiina Wahlfors Anna Hammais	Finnish Institute for Health and Welfare (THL)
IPCI	Katia Verhamme	Erasmus MC
IQVIA DA Germany	Dina Vojinovic Gargi Jadhav Isabella Kacmarczyl Akram Mendez	IQVIA
NLHR	Hedvig Marie Egeland Nordeng Nhung Trinh Saeed Hayati	University of Oslo
VID	Gabriel Sanfélix-Gimeno Celia Robles-Cabaniñas	FISABIO

*Data partners' role is only to execute code at their data source, review and approve their results. These people do not have an investigator role. Data analysts/programmers do not have an investigator role and thus declaration of interests (DOI) for these people is not needed.

2. DATA SOURCES

Country	Name of Database	Health Care setting	Type of Data	Number of active subjects	Calendar period covered by each data source
Finland	FinOMOP-HILMO	Primary care GP, primary care specialist, secondary care specialist, hospital inpatient care	EHR, registries	6.25M	January 2017 to October 2024
The Netherlands	IPCI	Primary care GP	EHR	1.25M	January 2017 to June 2024
Germany	IQVIA DA Germany	Primary care GP, primary care specialist	EHR	4.35M	January 2017 to June 2024 *
Norway	NLHR	Primary care GP, primary care specialist, secondary care specialist, hospital inpatient care	Registries	5.74M	January 2017 to December 2023
Spain	VID	Primary care GP, secondary care specialist, hospital inpatient care, nursing homes	EHR, registries	1.61M	January 2018 to December 2021

* Observation period of IQVIA-DA Germany ended 6 months before their data cut.

3. ABSTRACT

Title

Characterising the use of JAK inhibitors in Europe: a Drug Utilisation Study

Rationale and background

JAKi therapy has recently been gaining popularity for the treatment of several autoimmune conditions, including rheumatoid arthritis, inflammatory bowel disease, and atopic dermatitis. There were long-term safety concerns regarding the use of tofacitinib in rheumatoid arthritis patients, including an increased risk of major adverse cardiovascular events (MACE), cancer, and opportunistic infections.. Despite further studies showing no increased risk of adverse events with JAKi use in atopic dermatitis, ulcerative colitis and psoriatic arthritis, the available evidence has been limited by short duration of follow-up and limited sample size especially in these new indications.

The current study aimed to estimate the incidence of new JAKi use over time, and to characterise new users of JAKi in Europe to inform the feasibility of future safety studies.

Research question and objectives

This study aimed to characterise the use of JAKi in Europe.

The specific objectives were:

1. To estimate the incidence of new JAKi use, overall and for each individual JAKi ingredient.

2. To characterise new JAKi users and treatment for each individual JAKi ingredient, over all indications and stratified by indication.

Study design

- Population level cohort study (objective 1)
- New user cohort study (objectives 2)

Population

The population level incidence analyses included all subjects available in the selected databases from 1st January 2017 until the most recent data lock of their respective databases, with at least 365 days of data visibility in the medical history.

The patient level cohort characterisation included all JAKi new users from the 1st of January 2017 until the most recent data lock of their respective databases, with at least 365 days of data visibility in the medical history.

Variables

Drugs of interest: JAKi: abrocitinib, baricitinib, filgotinib, tofacitinib, upadacitinib

Indications: atopic dermatitis, juvenile idiopathic arthritis, inflammatory bowel disease, alopecia areata, axial spondyloarthritis, psoriatic arthritis, rheumatoid arthritis, unknown indication.

Patient characteristics: age, sex, time from first diagnosis of indication to JAKi therapy initiation

Treatment characteristics: duration of index treatment drug era

Stratification: ingredient (specific JAKi), and indication

Results

Among the 5 included JAKi ingredients, tofacitinib had the highest count of initiators across the databases, ranging from 160 (VID) to 2,129 (FinOMOP-HILMO), which added up to a total of 5,554 individuals. Abrocitinib had the lowest count, with only 20 individuals from IPCI and 298 from NLHR. In general, new use of JAKi increased over the study period in most databases. The median age of initiation was youngest for abrocitinib, with most users starting therapy before they turned 40. Most of all other JAKi initiators were aged 41-60 years old in most scenarios. Treatment duration was generally consistent with different JAKi ingredients among databases with sufficient data quality on treatment duration, with median treatment duration ranging from 3-9 months for filgotinib to 4-10 months for abrocitinib.

The majority of JAKi initiators had a history of rheumatoid arthritis as their likely indication, except for abrocitinib, where 31.25% of new users in IPCI and 99.66% in NLHR had a record of atopic dermatitis. A variable proportion of JAKi initiators with rheumatoid arthritis had been previously treated with a different JAKi. After rheumatoid arthritis and (for abrocitinib) atopic dermatitis, other commonly recorded indications for JAKi included inflammatory bowel disease, psoriatic arthritis, and axial spondylitis. In general, over 90% of new JAKi users had a history of at least one potential indication in all databases except IPCI, in which the proportion with recorded likely indication was lower (31.2-55.5%).

Conclusion

New use of JAKi increased over the year from 2017 to 2023. Among the 5 included JAKi ingredients, tofacitinib had the highest count of initiators across the databases, whilst abrocitinib had the lowest count. Except for abrocitinib, most JAKi intiators were aged 41-60 at the time of initiation, and predominantly female. Treatment duration was short, with a median duration of less than 1 year across all JAKi. The most common recorded indication was rheumatoid arthritis, except for abrocitinib where it was atopic dermatitis. Average duration of the index JAKi treatment was generally less than a year, and switching (among different JAKi) was not uncommon.

4. LIST OF ABBREVIATIONS

Acronyms/terms	Description
CDM	Common Data Model
DA	Disease Analyzer
DARWIN EU®	Data Analysis and Real World Interrogation Network
DUS	Drug Utilisation Study
EEA	European Economic Area
EHR	Electronic Health Records
EMA	European Medicines Agency
EU	European Union
FDA	Food and Drug Administration
FinOMOP-HILMO	Finnish Care Register for Health Care
GP	General Practitioner
IPCI	Integrated Primary Care Information
JAKi	Janus kinase inhibitor/s
MACE	Major adverse cardiovascular event
NLHR	Norwegian Linked Health Registry data
OHDSI	Observational Health Data Sciences and Informatics
OMOP	Observational Medical Outcomes Partnership
ORAL	Oral Rheumatoid Arthritics Trial
TNF	Tumour Necrosis Factor
VID	Valencia Health System Integrated Dataset

5. AMENDMENTS AND UPDATES

None.

6. MILESTONES

Study deliverable	Timelines (planned)	Timelines (actual)
Draft Study Protocol	29/11/2024	2/12/2024
Final Study Protocol	December 2024	29/01/2025
Creation of Analytical code	January-February 2025	17/02/2025
Execution of Analytical Code on the data	January-February 2025	10/03/2025
Draft Study Report	March 2025	31/03/2025
Final Study Report	April 2025	29/04/2025

7. RATIONALE AND BACKGROUND

JAKi therapy has been gaining popularity for the treatment of several autoimmune conditions, including rheumatoid arthritis, inflammatory bowel disease, and atopic dermatitis. The first JAKi, tofacitinib, was approved by the European Medicines Agency (EMA) for the management of rheumatoid arthritis in 2017.(1) An FDA-requested study (the Oral Rheumatoid Arthritics Trial (ORAL) Surveillance trial)(2) showed a higher risk of major adverse cardiovascular events (MACE), cancer and adjudicated opportunistic infection with tofacitinib compared to tumour necrosis factor (TNF) inhibitors in patients aged 50 years or older with at least one cardiovascular risk factor.(3) Further research has been conducted on the safety profile of JAKi for other indications, including psoriatic arthritis, ulcerative colitis and atopic dermatitis.(4-6) It was shown that risk of venous thrombotic events of JAK inhibitor users was similar to placebo users in patients with atopic dermatitis(6) and ulcerative colitis(5). Incidence of adverse events, including herpes zoster infection and thrombotic events, remained similar with longer follow-up up to two years in psoriatic arthritis patients with JAK inhibitor.(4) A recent meta-analysis focusing on the JAKi use for immune-mediated skin conditions, including atopic dermatitis, alopecia areata and vitiligo, also showed no significant difference between JAKi and placebo or active comparators in the composite outcome of MACE and all-cause mortality, as well as risk of venous thrombotic events.(7) However, the available evidence, especially in other indications than RA, has been limited by short duration of follow-up and limited sample size and more research is needed to understand the safety profile in these populations. Since the new indications are relatively recently approved (**Table 1**) and the use of JAKi within those indications has not been that common, the sample size for these indications is an issue and hampers future research, therefore a study in a federated network such as DARWIN EU might be a solution.

Table 1. Year of marketing authorisation approval and indications of JAKi by EMA.

	JAKi ingredient				
	Abrocitinib	Baricitinib	Filgotinib	Tofacitinib	Upadacitinib
Year of marketing authorisation approval	2021	2017	2020	2017	2019
Approved indication	- Atopic dermatitis	- Alopecia areata - Atopic dermatitis - Juvenile idiopathic arthritis - Rheumatoid arthritis	- Rheumatoid arthritis - Ulcerative colitis	- Axial spondylitis - Juvenile idiopathic arthritis - Psoriatic arthritis - Rheumatoid arthritis - Ulcerative colitis	- Atopic dermatitis - Axial spondylitis - Inflammatory bowel disease - Psoriatic arthritis - Rheumatoid arthritis

The current study aimed to estimate the incidence of new JAKi use over time, and to characterise new users of JAKi in Europe to inform the feasibility of future safety studies.

8. RESEARCH QUESTION AND OBJECTIVES

Table 2. Primary and secondary research questions and objective.

A. Objective 1. Population-level drug utilisation

Objective 1:	To estimate the incidence of new JAKi use, overall and for each individual JAKi ingredient
Hypothesis:	Not applicable
Population *(mention key inclusion-exclusion criteria):*	The study included all people available in the databases with at least 365 days of data visibility.
Exposure:	Not applicable
Comparator:	Not applicable
Outcome:	JAKi (abrocitinib, filgotinib, baricitinib, upadacitinib, tofacitinib)
Time *(when follow up begins and ends):*	From 1st January 2017 until the most recent data lock for each included database.
Setting:	Data was collected from primary care and secondary care outpatient setting with the following databases: - FinOMOP-HILMO (primary care, secondary care outpatient) - IPCI (primary care) - IQVIA DA Germany (primary care)

	- NLHR (primary care, secondary care outpatient) - VID (primary care, secondary care outpatient)
Main measure of effect:	Annual incidence rates of JAKi use, for the entire class pooled together and for each JAKi ingredient

B. Objectives 2. Patient-level characterisation and drug utilisation studies

Objective 2:	To characterise new JAKi users and treatment, overall and stratified by ingredient and indication
Hypothesis:	Not applicable
Population *(mention key inclusion-exclusion criteria):*	The study included all patients available in the databases initiating JAKi therapy, with at least 365 days of data visibility before therapy initiation
Exposure:	JAKi (abrocitinib, filgotinib, baricitinib, upadacitinib, tofacitinib)
Comparator:	Not applicable
Outcome:	Not applicable
Time *(when follow up begins and ends):*	For treatment characterisation: from each JAKi therapy initiation until the discontinuation of index drug era
Setting:	Data was collected from primary care and secondary care outpatient setting with the following databases: - FinOMOP-HILMO (primary care, secondary care outpatient) - IPCI (primary care) - IQVIA DA Germany (primary care) - NLHR (primary care, secondary care outpatient) - VID (primary care, secondary care outpatient)
Main measures of effect:	Patient characterisation: demographics and time from first diagnosis of indication to each JAKi therapy initiation Treatment characterisation: treatment duration in months

9. RESEARCH METHODS

9.1 Study type and study design

Cohort studies were conducted using the data from the included databases. A population-level cohort analysis was used for Objective 1. A new drug users cohort design was used for Objective 2.

Table 3. Description of potential study types and related study designs.

Study type	Study design	Study classification
Population Level DUS	Population Level Cohort	Off the shelf
Patient Level DUS	New drug/s user cohort	Off the shelf

9.2 Study setting and data sources

This study was conducted using 5 databases onboarded for DARWIN EU® network of data partners from 5 European countries. These databases had been selected based on geographic representativeness and availability of data on JAK inhibitors. The selected databases cover Finland, Germany, Norway, The Netherlands and Spain. The results generated from these databases therefore cover regions of Northern, Central and Southern Europe.

Table 4. Description of the selected data sources.

Country	Name of Database	Justification for Inclusion	Health Care setting	Type of Data	Number of active subjects	Feasibility count of exposure[1]	Data lock for the last update
Finland	FinOMOP-HILMO	Database includes records from specialist care and linkage between primary care and secondary care. There are also adequate number of records of JAK inhibitors for subsequent patient characterisation.	Primary care GP, primary care specialist, secondary care specialist, hospital inpatient care	EHR, registries	6.25M	2500	2024-10-09
The Netherlands	IPCI	Database includes adequate number of records of JAK inhibitors for subsequent patient characterisation.	Primary care GP	EHR	1.25M	700	2024-06-30
Germany	IQVIA DA Germany	Database includes records from specialist care. There are adequate number of records of JAK inhibitors for subsequent patient characterisation.	Primary care GP, primary care specialist	EHR	4.35M	7900	2024-06-30
Norway	NLHR	Database includes records from specialist care and linkage between primary care and secondary care. There are also adequate number of records of JAK inhibitors for subsequent patient characterisation.	Primary care GP, primary care specialist, secondary care specialist, hospital inpatient care	EHR, Registries	5.74M	2600	2023-12-31
Spain	VID [2]	Database includes specialist care and linkage between primary care and secondary care. There are also adequate number of records of JAK inhibitors for subsequent patient characterisation.	Primary care GP, secondary care specialist, hospital inpatient care, nursing homes	EHR, registries	1.61M	600	2021-12-31

1. Feasibility count of exposure was identified as unique exposed individuals.
2. Only female individuals are included in this data source.

Information on data sources used is described below:

Finnish Care Register for Health Care [FinOMOP-HILMO] (Finland)

The THL HILMO database covers both public and private, primary and specialised inpatient and outpatient health care encounters in Finland starting from 2011. The entire public sector and private inpatient encounters have been included since 2011, while private outpatient encounters, including occupational care, are included since 2020. The main content of the THL CDM is The Finnish Care Register for Health Care (fi:Hoitoilmoitusrekisteri, HILMO). It is a continuation of the former Hospital Discharge Register, which originally gathered data on patients discharged from hospitals. The Care Register has comprehensive data on the use of services and service users from Finnish public inpatient and outpatient primary and specialised care nationwide. Since 1998 the register has covered both public outpatient and inpatient specialised care and private inpatient care (TerveysHilmo). From 2011 the register has covered public primary care (AvoHilmo). From 2020 the register has covered private outpatient care and occupational care. In addition, the CDM also contains the vaccination data from the Finnish National Vaccination Register, and positive COVID-19 test results from the Finnish National Infectious Diseases Register, which is maintained by THL. The CDM is currently produced from the above-mentioned, and limited to observation periods commencing after 1.1.2011. The National Population registry is also used as a source for the CDM database. The National Population registry data forms the basis for forming the patient population. This ensures up-to-date location (municipality of residence) of patients as well as complete death occurrences (although not the cause of death). Using the complete population as a basis for the person table also serves to facilitate calculations on a population level, e.g. incidence rates. The current CDM population comprises all persons having been alive and residing in Finland since the beginning of 2011.

Integrated Primary Care Information [IPCI] (The Netherlands)

The Integrated Primary Care Information (IPCI) database is a longitudinal observational database containing routinely collected data from computer-based patient records of a selected group of GPs throughout the Netherlands (N=723). IPCI was started in 1992 by the department of Medical Informatics of the Erasmus University Medical Center in Rotterdam with the objective to enable better post marketing surveillance of drugs. The current database includes patient records from 2006 on, when the size of the database started to increase significantly. In 2016, IPCI was certified as Regional Data Center. Since 2019 the data is also standardised to the Observational Medical Outcomes Partnership common data model (OMOP CDM), enabling collaborative research in a large network of databases within the Observational Health Data Sciences and Informatics (OHDSI) community. The primary goal of IPCI is to enable medical research. In addition, reports are generated to inform GPs and their organisations about the provided care. Contributing GPs are encouraged to use this information for their internal quality evaluation. The IPCI database is registered on the European Medicines Agency (EMA) ENCePP resources database (http://www.encepp.eu).

IQVIA Disease Analyzer Germany [IQVIA DA Germany] (Germany)

IQVIA Disease Analyzer (DA) Germany is a database of de-identified electronic medical records from specialised and general primary practices (GP) in Germany since 1992. This dataset encompasses approximately 3% of all outpatient practices within Germany, ensuring a substantial representation of the national healthcare landscape. The sampling methods used for practice selection, taking into account physician's demographics, specialty focus, community size category and federal state location, was instrumental in constructing a database that accurately mirrors the diverse spectrum of healthcare providers in the country. Consequently, data within IQVIA DA Germany database has been demonstrated to be representative of general and specialised practices throughout Germany.

The database contains demographics records, basic medical data, disease diagnosis according to International Classification of Diseases, 10th revision (ICD-10), and prescription records. While the database partly records information on deaths and procedures, it currently does not support linkage with external data sources. Routine updates are conducted at regular intervals.

IQVIA DA Germany is suitable for pharmacoepidemiologic and pharmacoeconomic studies as previously demonstrated. The quality of data is assessed based on several criteria including completeness of information and correctness (e.g. linkage between diagnosis and prescriptions).

Norwegian Linked Health Registry data [NLHR] (Norway)

Norway has a universal public health care system consisting of primary and specialist health care services covering a population of approximately 5.4 million inhabitants. Many population-based health registries were established in the 1960s with use of unique personal identifiers facilitating linkage between registries. Data in these health registries are used for health analysis, health statistics, improving the quality of healthcare, research, administration and emergency preparedness. Data from the following registries were mapped onto the OMOP CDM: the Medical Birth Registry of Norway (MBRN), the Norwegian Prescription Registry (NorPD), the Norwegian Patient Registry (NPR), Norway Control and Payment of Health Reimbursement (KUHR), the Norwegian Surveillance System for Communicable Diseases (MSIS), the Norwegian Immunisation Registry (SYSVAK), the National Death Registry, and the National Registry (NR). Linkage between the registries was facilitated using project-specific person ID generated from unique personal identification assigned at birth or immigration for all legal residents in Norway. In brief: MBRN stores information about the pregnancy, the mother, father and child; NPR records diagnosis in secondary care (e.g., hospital); KUHR contains information about diagnosis and contact in primary care (e.g, GPs and outpatient specialists) – to be included in third release; NorPD recorded all medications dispensed outside of hospitals; MSIS collects test results of communicable diseases (e.g., Sars-Cov-2); SYSVAK recorded vaccinations.

Valencia Health System Integrated Dataset [VID] (Spain)

The Valencia Health System Integrated Dataset (VID) is a set of multiple, public, population-wide electronic databases for the Valencia Region, the fourth most populated Spanish region, with about 5 million inhabitants and an annual birth cohort of 48 000 newborns, representing 10.7% of the Spanish population and around 1% of the European population. The VID provides exhaustive longitudinal information including sociodemographic and administrative data (sex, age, nationality, etc.), clinical (diagnoses, procedures, diagnostic tests, imaging, etc.), pharmaceutical (prescription, dispensing) and healthcare utilisation data from hospital care, emergency departments, specialised care (including mental and obstetrics care), primary care and other public health services. It also includes a set of associated population databases and registries of significant care areas such as cancer, rare diseases, vaccines, congenital anomalies, microbiology (including COVID-19 test results registry) and others, and also public health databases from the population screening programmes. All the information in the VID databases can be linked at the individual level through a single personal identification code. The databases were initiated at different moments in time, but all in all the VID provides comprehensive individual-level data fed by all the databases from 2008 to date. The OMOP instance has been created using CONSIGN project data, where 1.96 million of females in fertile age are studied from start of 2018 to end of 2021.

9.3 Study period

The study period started from 1st January 2017 until the most recent data lock for each included database.

9.4 Follow-up

For the population-level drug utilisation study (objective 1), eligible study participants began to contribute person time from the latest of the following: (1) study start date, (2) date at which the observation period starts (i.e. 1st January of each year), or (3) date with at least 365 days of data visibility. Respective study participants stopped contribute person time at the earliest date of the following: (1) date on which the observation period ends (i.e. 31st December of each year), (2) end of data availability, or (3) date of first JAKi exposure if applicable (outcome of the incidence analysis).

For patient-level characterisation and drug utilisation studies (objectives 2 and 3), eligible study participants with at least 365 days of data visibility were followed-up from the date of first JAKi exposure until the earliest of (1) end of index JAKi treatment exposure, (2) death, (3) loss to follow-up, or (4) end of data availability.

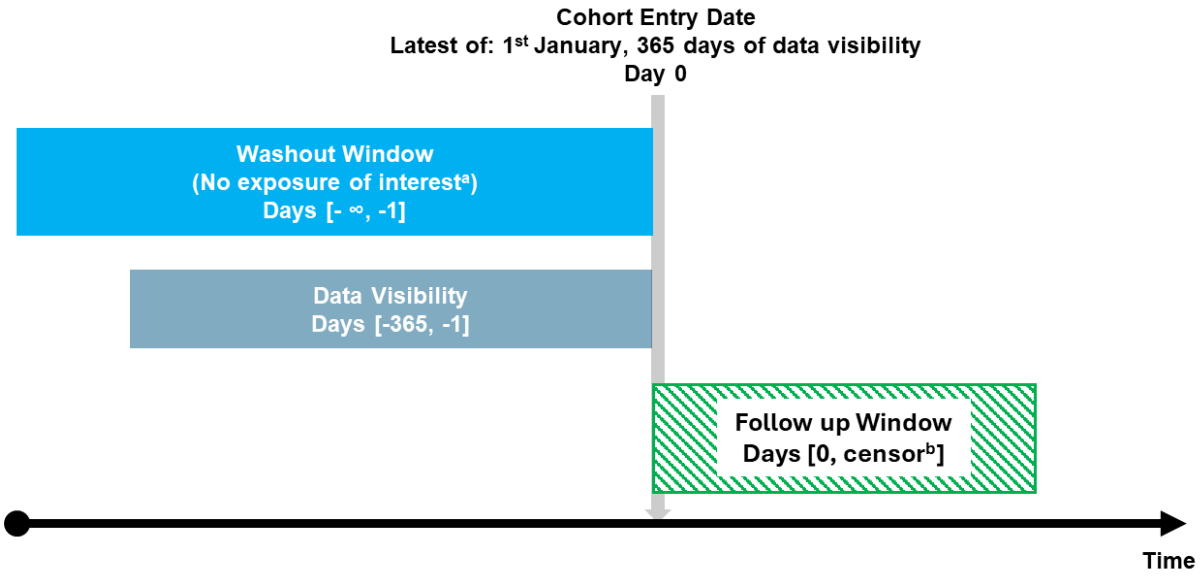

Figure 1. HARPER diagram for index date definition in population level DUS (Objective 1).

(a) Exposure of interest: any JAKi, individual JAKi ingredient
(b) Earliest of: 31st December of each year, death, loss of follow-up, end of data availability, initiation of exposure of interest

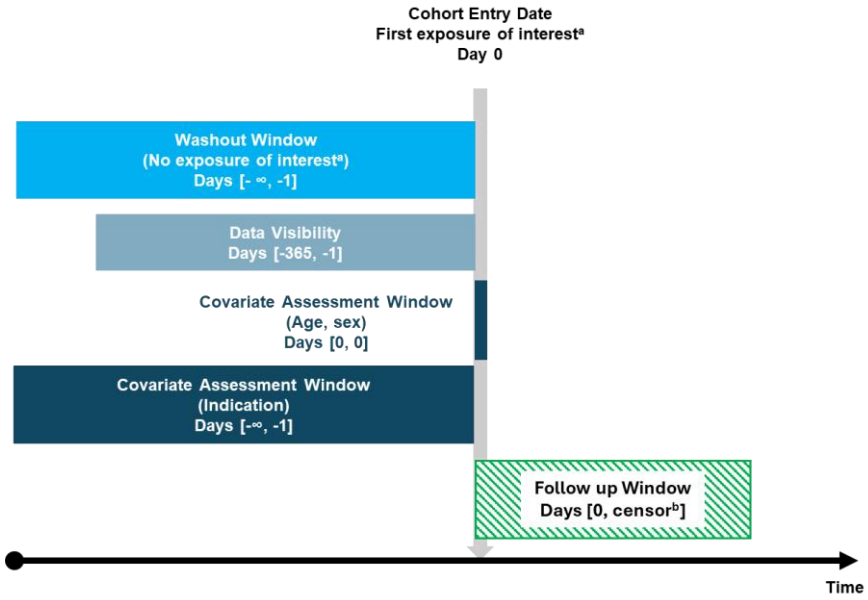

Figure 2. HARPER diagram for index date definition in patient level characterization (Objective 2).

(a) Exposure of interest: individual JAKi ingredient
(b) Earliest of: end of treatment with index exposure of interest, death, loss to follow-up, end of data availability

9.5 Study population with in and exclusion criteria

For population level DUS (Objective 1)

All individuals available in the respective databases from 1st January 2017 until the end of data availability, with at least 365 days of data visibility, were included in the population level DUS.

Different exclusion criteria were applied corresponding to each outcome of the JAKi exposure incidence rate analysis. For incidence of first JAKi ever initiation, individuals with any JAKi exposure before index date were excluded. For incidence of individual JAKi ingredient (abrocitinib/baricitinib/filgotinib/upadacitinib/tofacitinib) initiation, individuals with respective JAKi exposure before index date were excluded.

For patient level characterization (Objectives 2)

All individuals available in the respective databases from 1st January 2017 until the end of data availability, that newly initiated JAKi and at least 365 days of data visibility, were included in the patient level DUS. Individuals with specific JAKi exposure before the start of study period (i.e. 1st January 2017) were excluded.

9.6 Variables

9.6.1 Exposure /s

In the population level DUS (Objective 1) no exposure variable was defined. The incident use of JAKi was the outcome in the analyses, as described in section 9.6.2 below.

Exposure of interest in the characterization of JAKi initiators (Objective 2) was the initiation of treatment with the following JAKi: abrocitinib, filgotinib, baricitinib, upadacitinib, and tofacitinib. Operational definition of exposure was described in **Table 5Error! Reference source not found..**

Table 5. Operational definitions of exposure.

Exposure group name(s)	Details	Washout window	Assessment Window	Care Setting[1]	Code Type	Applied to study populations	Incident with respect to…	Measurement characteristics / validation	Source of algorithm
Individual JAKi ingredient	Preliminary code lists provided in Appendix I.	[-Inf, -1]	First ever exposure of each individual JAKi ingredient was assessed during the study period of 2017-2024.	OP, IP	RxNorm	For patient level characterization (objective 2)	Specific individual JAKi ingredient	N/A	N/A

[1] IP = inpatient, OP = outpatient, ED = emergency department, OT = other, n/a = not applicable

9.6.2 Outcome/s

In the population level DUS (Objective 1), the incident use of JAKi was the outcome in the analyses.

For the incidence of first JAKi ever initiation, the outcome was defined as first prescription/dispensation of any JAKi. For incidence of individual JAKi ingredient (abrocitinib/ baricitinib/ filgotinib/ tofacitinib/ upadacitinib) initiation, the outcome was defined as first prescription/dispensation of respective individual JAKi ingredient.

9.6.3 Other covariates, including confounders, effect modifiers and other variables

The following covariates were reported as part of patient and treatment characterisation for each specific individual JAKi ingredient.

- Age at index date was calculated. Age was presented as a mean/median age as well as proportion of patient stratified within age groups (0-3, 4-12, 13-18, 19-40, 41-60, >60).
- Sex (male/female)
- Pre-specified indicated condition for JAKi, defined by condition recorded before index date (yes/no for each indication). Indications of JAKi was defined by any records of the above-mentioned pre-specified conditions before the first exposure of specific individual JAKi ingredient. Multiple indications were allowed. Preliminary code lists for the pre-defined indications were provided in Appendix I.
    - Atopic dermatitis
    - Juvenile idiopathic arthritis
    - Inflammatory bowel disease
    - Alopecia areata
    - Axial spondyloarthritis
    - Psoriatic arthritis
    - Rheumatoid arthritis
    - Unknown indication (defined as none of the predefined indications were found)
- Time from first indication to first JAKi initiation, estimated separately for each pre-specified indication (more than one per patient was possible) and presented in months
- Duration of index JAKi treatment era (months)
- Prior use of other JAKi (yes/no)

In addition, a large-scale characterisation for identifying potentially missing diagnosis codes from pre-specified lists was performed and if needed, definitions were enriched with missing codes.

The following covariates was used for the stratification in patient characterisation.

- Pre-defined indication

The study covariates were described conceptually, and the context or rationale for the choices were provided in this section. The operational definition of the covariates was described in the **Table 6**.

Table 6. Operational definitions of covariates.

Characteristic	Details	Type of variable	Assessment window	Care Settings[1]	Code Type	Diagnosis Position[2]	Applied to study populations	Measurement characteristics/ validation	Source for algorithm
Age	Age at index date in years	Numeric, continuous	[0,0]	OP	N/A	N/A	individual JAKi ingredient	N/A	N/A
Sex	Biological sex as recorded	Binary, count	[0,0]	OP	N/A	N/A	individual JAKi ingredient	N/A	N/A
Indication	Diagnosis of pre-defined condition considered as possible indication for JAKi, including atopic dermatitis, juvenile idiopathic arthritis, inflammatory intestinal disease, alopecia areata, axial spondyloarthritis, psoriatic arthritis, rheumatoid arthritis and unknown indication	Binary, count	[-Inf, 0]	OP	SNOMED	N/A	individual JAKi ingredient	N/A	N/A
Time from first diagnosis of indication to JAKi initiation	Time from first possible indication for JAKi to first exposure of each individual JAKi ingredient	Numeric, continuous	[-Inf, 0]	OP	N/A	N/A	individual JAKi ingredient	N/A	N/A
Treatment duration	Duration of JAKi used	Numeric, continuous	[0, end of index drug era]	OP	N/A	N/A	individual JAKi ingredient	N/A	N/A

1. IP = inpatient, OP = outpatient, ED = emergency department, OT = other, n/a = not applicable
2. Specify whether a diagnosis code is required to be in the primary position (main reason for encounter)

9.7 Study size

No sample size was calculated for this study. Based on the preliminary feasibility assessment, expected number of subjects to be involved in each data source would be approximately between 600 and 7900.

The feasibility count for each database was as follows: FinOMOP-HILMO (as of 2024-Nov): 2500; IPCI (as of 2024-Nov): 700; IQVIA-DA (as of 2024-Nov): 7900; NLHR (as of 2024-Jul): 2600; VID (as of 2024-Nov): 600.

9.8 Data transformation

All databases were mapped to the OMOP common data model. This enabled the use of standardised analytics and tools across the network since the structure of the data and the terminology system is harmonised. The OMOP CDM is developed and maintained by the Observational Health Data Sciences and Informatics (OHDSI) initiative and is described in detail on the wiki page of the CDM: https://ohdsi.github.io/CommonDataModel and in The Book of OHDSI: http://book.ohdsi.org.

This analytic code for this study was written in R. Each data partner executed the study code against their database containing patient-level data and returned the results set which only contained aggregated data. The results from each of the contributing data sites were combined in tables and figures for the study report.

9.9 Statistical methods

9.9.1 Main summary measures

Incidence of new JAKi use

Incidence of new JAKi use (measured as prescription or dispensation), overall and for each individual JAKi ingredient, was calculated annually as the number of individuals with a first JAKi prescription/dispensation per 100,000 per-years of the population at risk of getting exposed during the period for each calendar year. Those study participants who entered the denominator population contributed time at risk up to their first use during the study period or if they did not have a drug exposure, they contributed time at risk up as described above in section 9.4 (Follow-up). Incidence rates were given together with 95% Poisson exact confidence intervals. Illustration of the calculation of incidence use of the medicines of interest is shown below in **Figure 3**.

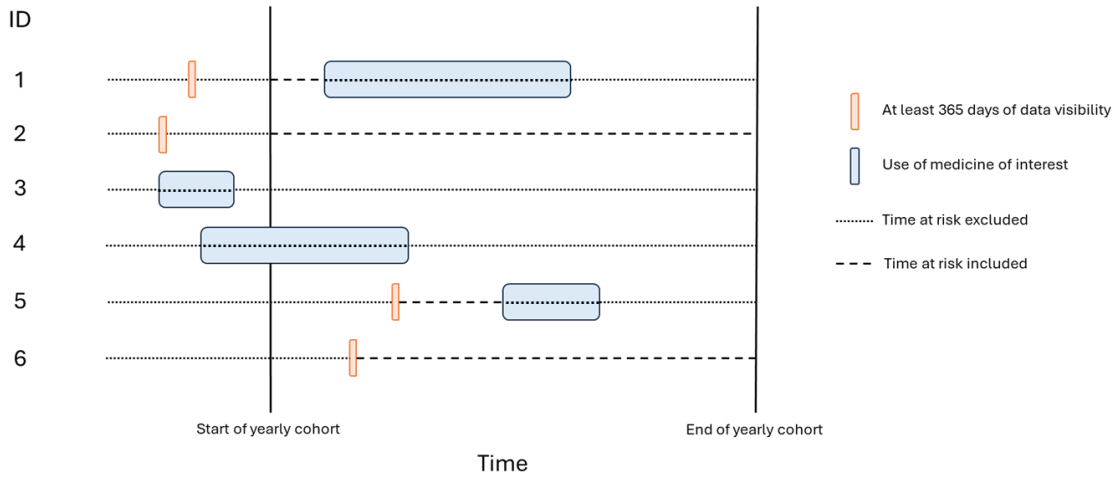

Figure 3. Illustration of the calculation of incidence on use of medicines of interest.

Example of incidence calculation is shown in **Figure 3**. Individuals (ID 1, 2) with sufficient data visibility were included in the incidence calculation contributing to the time at risk (denominator). Individuals continued to contribute the time at risk until initiation of drug of interest (ID 1) or the end of follow-up for yearly cohort (ID 2). For individuals with exposure to JAKi before the start of the yearly cohort (ID 3) or with exposure at the start of the yearly cohort (ID 4), these subjects were excluded for the annual incidence calculation. Individuals contributed time at risk only when they had sufficient data visibility. Therefore, as illustrated by ID 5 and 6, individuals were only included and contributed to the denominator from the point with at least 365 days of data visibility.

For the incidence of each individual JAKi ingredient, only use of the specific individual JAKi ingredient was considered. These subjects with previous exposure of other JAKi were allowed to be included in the denominator during the calculation of population-level incidence. Each analysis on individual JAKi ingredient was independent of other JAKi exposure. In other words, patients with exposure to different JAKi were counted multiple times in different analyses.

Patient Characteristics

JAKi initiators were characterized in terms of age, sex, and time from first diagnosis of prespecified indication to first JAKi exposure. Treatment characterisation included indication and duration of treatment. Reporting on patient-level characterisation was stratified by each individual JAKi ingredient and indication.

Duration of treatment

Drug eras were defined as follows: exposure started at date of the first prescription, e.g., the index date the person entered the cohort. For each prescription, the estimated duration of use was retrieved from the drug exposure table in the CDM, using the start and end date of the exposure. Subsequent prescriptions were combined into continuous exposed episodes (drug eras) if the distance in days between end of the first exposure and start of the second exposure was ≤ 90 days. For the included individuals, the duration of JAKi use was calculated by sum of duration of first drug eras during the study period. Treatment duration was summarised providing the minimum, p25, median, p75, and maximum duration.

9.9.2 Main statistical methods

Analyses were conducted separately for each database. Before study initiation, test runs of the analytics were performed on a subset of the data sources or on a simulated set of patients and quality control checks were performed. Once all the tests were passed, the final package was released in the version-controlled Study Repository for execution against all the participating data sources.

The data partners locally executed the analytics against the OMOP-CDM in R Studio and reviewed and approved the by default aggregated results before returning them to the Coordination Centre. Sometimes multiple execution iterations were performed, and additional fine tuning of the code base was needed. A service desk was available during the study execution for support.

The study results of all data sources were checked after which they were made available to the team in the Digital Research Environment and the Dissemination Phase started. All results were locked and timestamped for reproducibility and transparency.

To prevent confidentiality issues, cell counts lower than 5 were reported as “<5”.

Details on type of analysis were given in **Error! Reference source not found.**.

Table 7. Description of study types and type of analysis.

Study type	Study classification	Type of analysis
Population Level DUS	Off-the-shelf	- Population-based incidence rates
Patient Level DUS	Off-the-shelf	- Characterisation of patient-level features - Frequency and % of indication/s - Estimation of minimum, p25, median, p75, and maximum treatment duration

9.9.3 Missing values

A large-scale characterisation for identifying potentially missing diagnosis codes from pre-specified lists was performed for any time prior to the index date (i.e. [-Inf, 0]) and if needed, definitions were enriched with missing codes.

9.9.4 Sensitivity analysis

Additional sensitivity analysis was conducted with large scale characterisation with [-365, 0] to obtain more information for potential missing diagnosis codes.

10. DATA MANAGEMENT

All databases have previously mapped their data to the OMOP common data model. This enabled the use of standardised analytics and using DARWIN EU tools across the network since the structure of the data and the terminology system is harmonised. The OMOP CDM was developed and maintained by the Observational Health Data Sciences and Informatics (OHDSI) initiative and is described in detail on the wiki page of the CDM: https://ohdsi.github.io/CommonDataModel and in The Book of OHDSI. http://book.ohdsi.org.

The analytic code for this study was written in R and used standardised analytics. Each data partner executed the study code against their database containing patient-level data, and then returned the results (csv files) which only contained aggregated data. The results from each of the contributing data sites were combined in tables and figures for the study report.

11. QUALITY CONTROL

General database quality control

A number of open-source quality control mechanisms for the OMOP CDM have been developed (see Chapter 15 of The Book of OHDSI http://book.ohdsi.org/DataQuality.html). In particular, it is expected that data partners run the OHDSI Data Quality Dashboard tool (https://github.com/OHDSI/DataQualityDashboard). This tool provides numerous checks relating to the conformance, completeness and plausibility of the mapped data. Conformance focuses on checks that describe the compliance of the representation of data against internal or external formatting, relational, or

computational definitions, completeness in the sense of data quality is solely focused on quantifying missingness, or the absence of data, while plausibility seeks to determine the believability or truthfulness of data values. Each of these categories has one or more subcategories and are evaluated in two contexts: validation and verification. Validation relates to how well data align with external benchmarks with expectations derived from known true standards, while verification relates to how well data conform to local knowledge, metadata descriptions, and system assumptions.

Study specific quality control.

Before executing the study code, we used the DrugExposureDiagnostics R Package (https://darwin-eu.github.io/DrugExposureDiagnostics/) to summarise the ingredient specific drug exposure data of each database. The results from the diagnostics provided detailed information related to drug dose, form, and days of supply, which informed us whether a database have sufficient information for the patient level DUS analysis.

When defining cohorts for indications, a systematic search of possible codes for inclusion has been identified using CodelistGenerator R package (https://github.com/darwin-eu/CodelistGenerator). This software allows the user to define a search strategy and using this, then query the vocabulary tables of the OMOP common data model to find potentially relevant codes.

12. DEVIATIONS FROM THE PROTOCOL

- We additionally considered juvenile arthritis as one of the indications, on top of juvenile idiopathic arthritis as in protocol.
- IQVIA-DA Germany defined the observation period based on patient visit rather than records of registration with practice and/ or death record. Therefore, the assumption that a patient belonged to a practice (i.e. contributed to the denominator) can only be me made for dates between the first and last visit of the patient. This has a strong impact towards the database end resulting in a much-reduced denominator as the full denominator depends on the frequency of visits including future visits that have not yet taken place, which could lead to increase in prevalence or incidence towards the end of data availability in the database. To mitigate this, we plan not to conduct the analyses of incidence and prevalence within the 6 months before the last data availability in the database.
- Incidence was calculated with complete time interval.
- Assessment window was changed to [-inf, 0] instead of [-inf, -1] for identifying possible indication.
- Treatment duration was limited by data quality on drug records in VID and FinOMOP-HILMO, therefore results on treatment duration in VID and FinOMOP-HILMO was excluded.

13. RESULTS

All the results are available in a shiny app: Study_P3_C1_001 - DARWIN EU®, with analytic code available on GitHub: darwin-eu-studies/P3-C1-001.

13.1 Participants

Overall, there were 6,618,745 individuals from FinOMOP-HILMO, 2,954,616 individuals from IPCI, 44,581,708 individuals from IQVIA-DA Germany, 6,114,138 individuals from NLHR and 1,964,588 individuals from VID available. A total of 537 individuals from FinOMOP-HILMO and 28,330 individuals from IQVIA-DA Germany were excluded for due to missing gender information; 356,162 individuals from FinOMOP-HILMO, 700,008 from IPCI, 16,286,145 from IQVIA-DA Germany, and 52,997 from NLHR were excluded due to lack

of observation time during the study period of 2017-2024. An additional 117,108 individuals (FinOMOP-HILMO), 237,760 individuals (IPCI), 13,936,190 individuals (IQVIA-DA Germany), 226,259 individuals (NLHR), and 390,904 individuals (VID) were excluded for not fulfilling 365 days prior history requirement during the study period. Finally, 9 individuals (FinOMOP-HILMO), 96 individuals (IPCI), 1,027 individuals (IQVIA-DA Germany), 11 individuals (NLHR) and 82 individuals (VID) were excluded due to JAKi use prior to the start of study period (1st January 2017) (**Table 8**). Therefore, a total of 2,016,752 individuals from IPCI, 14,311,724 individuals from IQVIA-DA Germany, 6,133,929 individuals from FinOMOP-HILMO, 5,834,880 individuals from NLHR and 1,573,602 individuals from VID were eligible for the incidence analyses.

Table 8. Attrition table for the denominator.

Reason	Variable name			
	Number records	Number subjects	Excluded records	Excluded subjects
FinOMOP-HILMO; jaki_any				
Starting population	6,696,420	6,618,745	-	-
Missing year of birth	6,696,420	6,618,745	0	0
Missing sex	6,695,862	6,618,208	558	537
Cannot satisfy age criteria during the study period based on year of birth	6,695,862	6,618,208	0	0
No observation time available during study period	6,285,816	6,251,046	410,046	367,162
Doesn't satisfy age criteria during the study period	6,285,816	6,251,046	0	0
Prior history requirement not fulfilled during study period	6,157,296	6,133,938	128,520	117,108
No observation time available after applying age, prior observation and, if applicable, target criteria	6,157,296	6,133,938	0	0
Starting analysis population	6,157,296	6,133,938	-	-
Apply washout and censor cohort - anyone with outcome prior to start excluded	6,157,285	6,133,929	11	9
IPCI; jaki_any				
Starting population	2,954,616	2,954,616	-	-
Missing year of birth	2,954,616	2,954,616	0	0
Missing sex	2,954,616	2,954,616	0	0
Cannot satisfy age criteria during the study period based on year of birth	2,954,616	2,954,616	0	0
No observation time available during study period	2,254,608	2,254,608	700,008	700,008
Doesn't satisfy age criteria during the study period	2,254,608	2,254,608	0	0
Prior history requirement not fulfilled during study period	2,016,848	2,016,848	237,760	237,760
No observation time available after applying age, prior observation and, if applicable, target criteria	2,016,848	2,016,848	0	0
Starting analysis population	2,016,848	2,016,848	-	-
Apply washout and censor cohort - anyone with outcome prior to start excluded	2,016,752	2,016,752	96	96
IQVIA-DA Germany; jaki_any				
Starting population	44,581,708	44,581,708	-	-
Missing year of birth	44,581,708	44,581,708	0	0
Missing sex	44,553,378	44,553,378	28,330	28,330

Reason	Variable name			
	Number records	Number subjects	Excluded records	Excluded subjects
Cannot satisfy age criteria during the study period based on year of birth	44,535,086	44,535,086	18,292	18,292
No observation time available during study period	28,248,941	28,248,941	16,286,145	16,286,145
Doesn't satisfy age criteria during the study period	28,248,941	28,248,941	0	0
Prior history requirement not fulfilled during study period	14,312,751	14,312,751	13,936,190	13,936,190
No observation time available after applying age, prior observation and, if applicable, target criteria	14,312,751	14,312,751	0	0
Starting analysis population	14,312,751	14,312,751	-	-
Apply washout and censor cohort - anyone with outcome prior to start excluded	14,311,724	14,311,724	1,027	1,027
NLHR; jaki_any				
Starting population	6,148,772	6,114,138	-	-
Missing year of birth	6,148,772	6,114,138	0	0
Missing sex	6,148,772	6,114,138	0	0
Cannot satisfy age criteria during the study period based on year of birth	6,148,772	6,114,138	0	0
No observation time available during study period	6,083,991	6,061,141	64,781	52,997
Doesn't satisfy age criteria during the study period	6,083,991	6,061,141	0	0
Prior history requirement not fulfilled during study period	5,852,116	5,834,891	231,875	226,250
No observation time available after applying age, prior observation and, if applicable, target criteria	5,852,116	5,834,891	0	0
Starting analysis population	5,852,116	5,834,891	-	-
Apply washout and censor cohort - anyone with outcome prior to start excluded	5,852,102	5,834,880	14	11
VID; jaki_any				
Starting population	1,964,588	1,964,588	-	-
Missing year of birth	1,964,588	1,964,588	0	0
Missing sex	1,964,588	1,964,588	0	0
Cannot satisfy age criteria during the study period based on year of birth	1,964,588	1,964,588	0	0
No observation time available during study period	1,964,588	1,964,588	0	0
Doesn't satisfy age criteria during the study period	1,964,588	1,964,588	0	0
Prior history requirement not fulfilled during study period	1,573,684	1,573,684	390,904	390,904
No observation time available after applying age, prior observation and, if applicable, target criteria	1,573,684	1,573,684	0	0
Starting analysis population	1,573,684	1,573,684	-	-
Apply washout and censor cohort - anyone with outcome prior to start excluded	1,573,602	1,573,602	82	82

13.2 Main results

13.2.1 Objective 1: Population-level drug utilisation

Among the 5 included JAKi ingredients, tofacitinib had the highest count of initiators across the databases, ranging from 160 (VID) to 2,129 (FinOMOP-HILMO), which added up to a total number of 5,554 individuals. Abrocitinib had the lowest count, and was only observed in two databases: 16 from IPCI and 298 from NLHR. IQVIA-DA Germany had the highest number of JAKi initiators, ranging from 630 for baricitinib to 2,534 for upadacitinib respectively. VID had the lowest number of JAKi initiators, including 30 for baricitinib, 115 for upadacitinib and 160 for tofacitinib respectively.

A total of 20 (IPCI) and 298 (NLHR) people were identified as abroticinib initiators; 1,207 (FinOMOP-HILMO), 143 (IPCI), 826 (IQVIA-DA Germany), 1,543 individuals (NLHR), and 36 (VID) individuals were identified as baricitinib initiators; 157 (FinOMOP-HILMO), 88 (IPCI), 1,044 (IQVIA-DA Germany), and 1,562 (NLHR) individuals initiated filgotinib; 2,135 (FinOMOP-HILMO), 265 (IPCI), 2,121 (IQVIA-DA Germany), 1,481 (NLHR) and 236 (VID) participants were identified as tofacitinib initiators; finally, 1,298 (FinOMOP-HILMO), 105 (IPCI), 3,612 (IQVIA-DA Germany), 546 (NLHR), and 118 (VID) people initiated upadacitinib. After excluding those without 365 days prior data visibility and additional exclusions, the remaining number of participants were: 16 (IPCI) and 298 (NLHR) for abrocitinib; 1,205 (FinOMOP-HILMO), 110 (IPCI), 630 (IQVIA-DA Germany), 1,538 (NLHR), 30 (VID) for baricitinib; 156 (FinOMOP-HILMO), 72 (IPCI), 752 (IQVIA-DA Germany), and 1,560 (NLHR) for filgotinib; 2,129 (FinOMOP-HILMO), 210 (IPCI), 1,583 (IQVIA-DA Germany), 1,472 (NLHR), and 160 (VID) for tofacitinib; and 1,296 (FinOMOP-HILMO), 86 (IPCI), 2,534 (IQVIA-DA Germany), 544 (NLHR) and 115 (VID) for upadacitinib.

In general, the incidence of new JAKi use increased over the study period from 2017 to 2023 (**Figure 4**, **Table 9**). For example, rates of initiation of JAKi increased from 2.3/100,000 person-year in 2017 to 15.6/100,000 person-year in 2022 for IQVIA-DA Germany, from 3.1 in 2017 to 14.0 in 2023 for FinOMOP-HILMO, and from 4.7 in 2019 to 8.9 in 2021 for VID. For NLHR, data started in 2018 with an incidence of JAKi initiation of 16.4, and dropped to 7.4 in 2020 during the COVID-19 pandemic, to increase again to 21.2 in 2023. Incidence of JAKi initiation in IPCI increased from 2.0 in 2017 to 7.6 in 2022, and slightly dropped in 2023 to 6.0.

When we considered the incidence of initiation of individual JAKi ingredients with no use of any JAKi previously, early rising trends were observed for baricitinib and tofacitinib, while use of filgotinib and upadacitinib increased from 2020. Abrocitinib use was only observed in IPCI and NLHR, with very low counts, and starting from 2022.

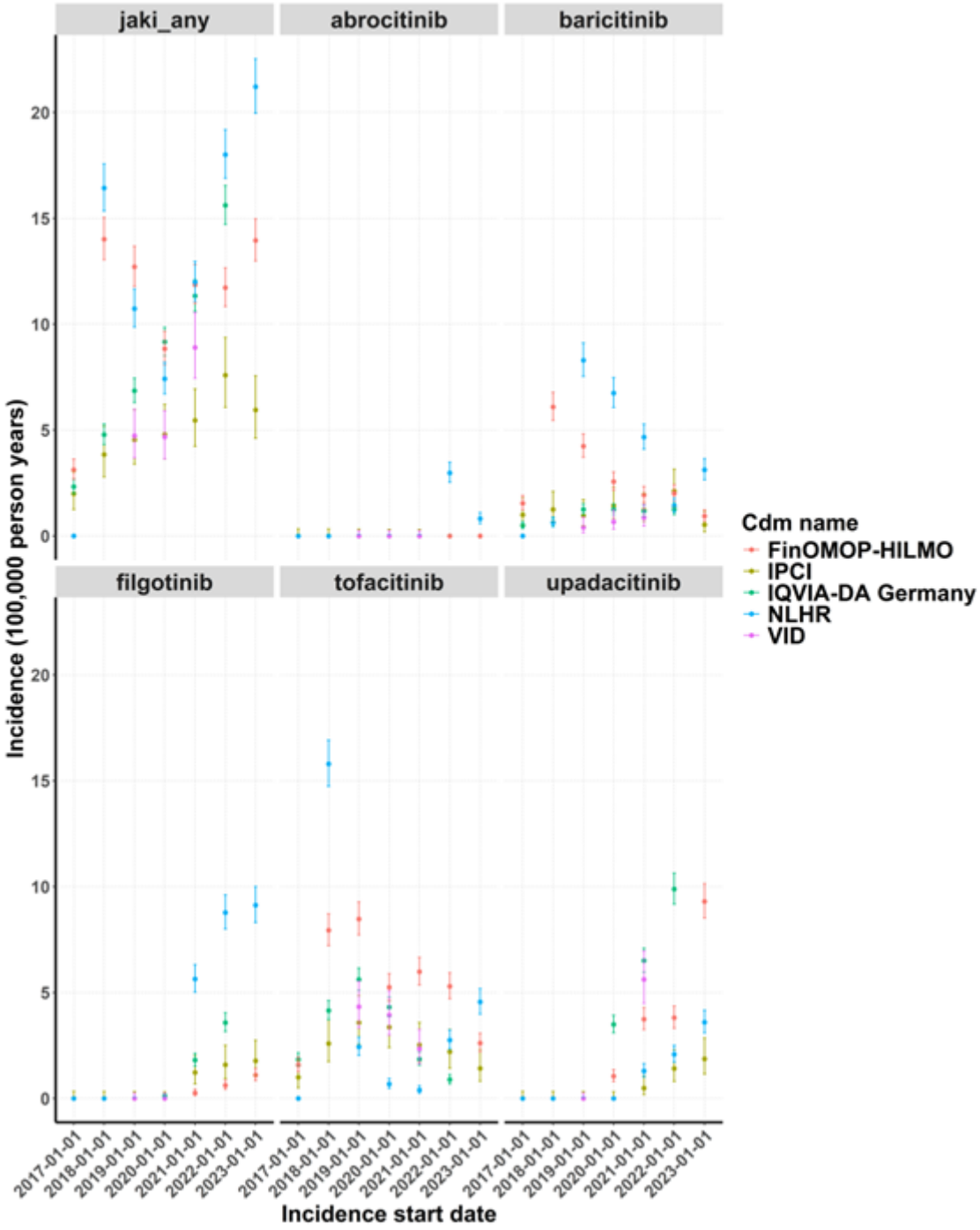

Figure 4. Incidence of new JAKi use among the individuals without prior exposure to any JAKi.

Table 9. Incidence of new JAKi use among the individuals without prior exposure to any JAKi.

		Database name									
		FinOMOP-HILMO		IPCI		IQVIA-DA Germany		NLHR		VID	
Incidence start date	Incidence end date	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]
jaki_any											
2017-01-01	2017-12-31	172	3.12 (2.68 - 3.63)	22	2.00 (1.25 - 3.02)	178	2.33 (2.00 - 2.70)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	773	14.01 (13.04 - 15.04)	43	3.84 (2.78 - 5.18)	385	4.78 (4.32 - 5.29)	857	16.43 (15.35 - 17.57)	-	-
2019-01-01	2019-12-31	702	12.71 (11.79 - 13.69)	52	4.54 (3.39 - 5.95)	555	6.86 (6.30 - 7.46)	564	10.73 (9.87 - 11.66)	70	4.73 (3.69 - 5.98)
2020-01-01	2020-12-31	490	8.84 (8.08 - 9.66)	57	4.80 (3.63 - 6.22)	742	9.17 (8.52 - 9.85)	394	7.42 (6.71 - 8.19)	70	4.67 (3.64 - 5.90)
2021-01-01	2021-12-31	656	11.86 (10.97 - 12.80)	67	5.46 (4.23 - 6.93)	904	11.34 (10.61 - 12.10)	638	12.00 (11.08 - 12.96)	133	8.90 (7.45 - 10.54)
2022-01-01	2022-12-31	649	11.72 (10.84 - 12.66)	86	7.59 (6.07 - 9.37)	1,129	15.61 (14.71 - 16.55)	962	18.01 (16.89 - 19.18)	-	-
2023-01-01	2023-12-31	774	13.96 (12.99 - 14.97)	67	5.95 (4.61 - 7.56)	-	-	1,067	21.22 (19.96 - 22.53)	-	-
abrocitinib											
2017-01-01	2017-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.34)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.33)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2019-01-01	2019-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.32)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)

		Database name									
		FinOMOP-HILMO		IPCI		IQVIA-DA Germany		NLHR		VID	
Incidence start date	Incidence end date	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]
2020-01-01	2020-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.31)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2021-01-01	2021-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.30)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2022-01-01	2022-12-31	0	0.00 (0.00 - 0.07)	<5	-	0	0.00 (0.00 - 0.05)	159	2.98 (2.53 - 3.48)	-	-
2023-01-01	2023-12-31	0	0.00 (0.00 - 0.07)	<5	-	-	-	41	0.81 (0.58 - 1.11)	-	-
baricitinib											
2017-01-01	2017-12-31	85	1.54 (1.23 - 1.91)	11	1.00 (0.50 - 1.78)	38	0.50 (0.35 - 0.68)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	336	6.09 (5.46 - 6.78)	14	1.25 (0.68 - 2.10)	51	0.63 (0.47 - 0.83)	33	0.63 (0.44 - 0.89)	-	-
2019-01-01	2019-12-31	234	4.24 (3.71 - 4.82)	11	0.96 (0.48 - 1.72)	101	1.25 (1.02 - 1.52)	436	8.30 (7.54 - 9.11)	6	0.41 (0.15 - 0.88)
2020-01-01	2020-12-31	142	2.56 (2.16 - 3.02)	17	1.43 (0.83 - 2.29)	101	1.25 (1.02 - 1.52)	358	6.74 (6.07 - 7.48)	10	0.67 (0.32 - 1.23)
2021-01-01	2021-12-31	107	1.94 (1.59 - 2.34)	15	1.22 (0.68 - 2.02)	93	1.17 (0.94 - 1.43)	248	4.66 (4.10 - 5.28)	13	0.87 (0.46 - 1.49)
2022-01-01	2022-12-31	111	2.00 (1.65 - 2.42)	24	2.12 (1.36 - 3.15)	91	1.26 (1.01 - 1.54)	76	1.42 (1.12 - 1.78)	-	-
2023-01-01	2023-12-31	52	0.94 (0.70 - 1.23)	6	0.53 (0.20 - 1.16)	-	-	157	3.12 (2.65 - 3.65)	-	-
filgotinib											

		Database name									
		FinOMOP-HILMO		IPCI		IQVIA-DA Germany		NLHR		VID	
Incidence start date	Incidence end date	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]
2017-01-01	2017-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.34)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.33)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2019-01-01	2019-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.32)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2020-01-01	2020-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.31)	10	0.12 (0.06 - 0.23)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2021-01-01	2021-12-31	14	0.25 (0.14 - 0.42)	15	1.22 (0.68 - 2.02)	144	1.81 (1.52 - 2.13)	300	5.64 (5.02 - 6.32)	<5	-
2022-01-01	2022-12-31	34	0.61 (0.42 - 0.86)	18	1.59 (0.94 - 2.51)	259	3.58 (3.16 - 4.04)	469	8.78 (8.00 - 9.61)	-	-
2023-01-01	2023-12-31	61	1.10 (0.84 - 1.41)	20	1.78 (1.08 - 2.74)	-	-	459	9.13 (8.31 - 10.00)	-	-
tofacitinib											
2017-01-01	2017-12-31	87	1.58 (1.27 - 1.95)	11	1.00 (0.50 - 1.78)	140	1.83 (1.54 - 2.16)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	438	7.94 (7.21 - 8.72)	29	2.59 (1.74 - 3.72)	334	4.15 (3.72 - 4.62)	824	15.80 (14.74 - 16.92)	-	-
2019-01-01	2019-12-31	468	8.47 (7.72 - 9.28)	41	3.58 (2.57 - 4.86)	454	5.61 (5.11 - 6.15)	128	2.44 (2.03 - 2.90)	64	4.33 (3.33 - 5.53)
2020-01-01	2020-12-31	291	5.25 (4.67 - 5.89)	40	3.37 (2.40 - 4.58)	349	4.31 (3.87 - 4.79)	36	0.68 (0.48 - 0.94)	59	3.94 (3.00 - 5.08)

		Database name									
		FinOMOP-HILMO		IPCI		IQVIA-DA Germany		NLHR		VID	
Incidence start date	Incidence end date	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]
2021-01-01	2021-12-31	331	5.98 (5.36 - 6.67)	31	2.53 (1.72 - 3.59)	148	1.86 (1.57 - 2.18)	21	0.40 (0.24 - 0.60)	35	2.34 (1.63 - 3.26)
2022-01-01	2022-12-31	293	5.29 (4.70 - 5.93)	25	2.21 (1.43 - 3.26)	64	0.88 (0.68 - 1.13)	147	2.75 (2.33 - 3.23)	-	-
2023-01-01	2023-12-31	145	2.61 (2.21 - 3.08)	16	1.42 (0.81 - 2.31)	-	-	229	4.55 (3.98 - 5.18)	-	-
upadacitinib											
2017-01-01	2017-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.34)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.33)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2019-01-01	2019-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.32)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2020-01-01	2020-12-31	58	1.05 (0.80 - 1.35)	0	0.00 (0.00 - 0.31)	283	3.50 (3.10 - 3.93)	0	0.00 (0.00 - 0.07)	<5	-
2021-01-01	2021-12-31	207	3.74 (3.25 - 4.29)	6	0.49 (0.18 - 1.06)	519	6.51 (5.96 - 7.09)	69	1.30 (1.01 - 1.64)	84	5.62 (4.48 - 6.96)
2022-01-01	2022-12-31	211	3.81 (3.32 - 4.36)	16	1.41 (0.81 - 2.29)	715	9.89 (9.18 - 10.64)	111	2.08 (1.71 - 2.50)	-	-
2023-01-01	2023-12-31	516	9.30 (8.52 - 10.14)	21	1.86 (1.15 - 2.85)	-	-	181	3.60 (3.09 - 4.16)	-	-

We also considered the incidence of initiation of individual JAKi ingredients among those without prior exposure to the same JAKi ingredient (but regardless of previous use of other JAKi). Trends of incidence of initiation for each individual JAKi in these analyses were similar to those seen in people not previously exposed to any JAKi (**Table 10**,**Figure 5**).

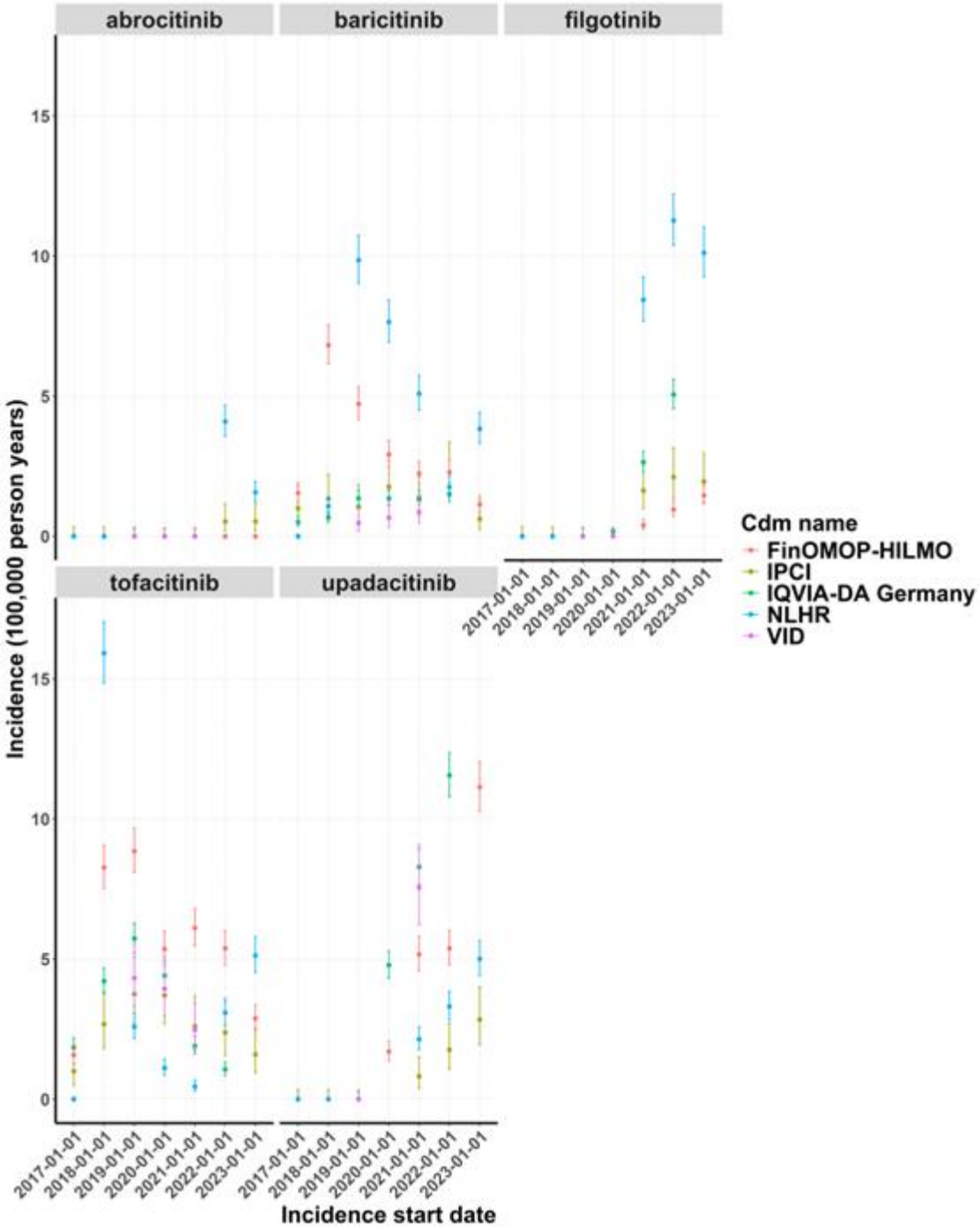

Figure 5. Incidence of new JAKi use among the individuals without prior exposure to the same JAKi ingredient.

Table 10. Incidence of new JAKi use among the individuals without prior exposure to the same JAKi ingredient.

		Database name									
		FinOMOP-HILMO		IPCI		IQVIA-DA Germany		NLHR		VID	
Incidence start date	Incidence end date	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]
abrocitinib											
2017-01-01	2017-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.34)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.33)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2019-01-01	2019-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.32)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2020-01-01	2020-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.31)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2021-01-01	2021-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.30)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2022-01-01	2022-12-31	0	0.00 (0.00 - 0.07)	6	0.53 (0.19 - 1.15)	0	0.00 (0.00 - 0.05)	219	4.10 (3.57 - 4.68)	-	-
2023-01-01	2023-12-31	0	0.00 (0.00 - 0.07)	6	0.53 (0.20 - 1.16)	-	-	79	1.57 (1.24 - 1.96)	-	-
baricitinib											
2017-01-01	2017-12-31	85	1.54 (1.23 - 1.91)	11	1.00 (0.50 - 1.78)	39	0.51 (0.36 - 0.70)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	376	6.82 (6.14 - 7.54)	15	1.34 (0.75 - 2.21)	54	0.67 (0.50 - 0.88)	56	1.07 (0.81 - 1.39)	-	-
2019-01-01	2019-12-31	261	4.72 (4.17 - 5.33)	12	1.05 (0.54 - 1.83)	110	1.36 (1.12 - 1.64)	518	9.86 (9.03 - 10.74)	7	0.47 (0.19 - 0.98)

		Database name									
		FinOMOP-HILMO		IPCI		IQVIA-DA Germany		NLHR		VID	
Incidence start date	Incidence end date	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]
2020-01-01	2020-12-31	162	2.92 (2.49 - 3.41)	21	1.77 (1.09 - 2.70)	110	1.36 (1.12 - 1.64)	406	7.65 (6.92 - 8.43)	10	0.67 (0.32 - 1.23)
2021-01-01	2021-12-31	124	2.24 (1.86 - 2.67)	16	1.30 (0.74 - 2.12)	109	1.37 (1.12 - 1.65)	271	5.10 (4.51 - 5.74)	13	0.87 (0.46 - 1.49)
2022-01-01	2022-12-31	127	2.29 (1.91 - 2.73)	26	2.29 (1.50 - 3.36)	109	1.51 (1.24 - 1.82)	94	1.76 (1.42 - 2.15)	-	-
2023-01-01	2023-12-31	63	1.14 (0.87 - 1.45)	7	0.62 (0.25 - 1.28)	-	-	193	3.84 (3.31 - 4.42)	-	-
filgotinib											
2017-01-01	2017-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.34)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.33)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2019-01-01	2019-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.32)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2020-01-01	2020-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.31)	15	0.18 (0.10 - 0.31)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2021-01-01	2021-12-31	22	0.40 (0.25 - 0.60)	20	1.63 (1.00 - 2.52)	211	2.65 (2.30 - 3.03)	449	8.44 (7.68 - 9.26)	<5	-
2022-01-01	2022-12-31	53	0.96 (0.72 - 1.25)	24	2.12 (1.36 - 3.15)	366	5.06 (4.55 - 5.60)	602	11.27 (10.38 - 12.20)	-	-
2023-01-01	2023-12-31	81	1.46 (1.16 - 1.81)	22	1.95 (1.22 - 2.96)	-	-	509	10.12 (9.26 - 11.04)	-	-
tofacitinib											

		Database name									
		FinOMOP-HILMO		IPCI		IQVIA-DA Germany		NLHR		VID	
Incidence start date	Incidence end date	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]
2017-01-01	2017-12-31	87	1.58 (1.27 - 1.95)	11	1.00 (0.50 - 1.78)	141	1.84 (1.55 - 2.18)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	456	8.27 (7.53 - 9.06)	30	2.68 (1.81 - 3.83)	339	4.21 (3.78 - 4.69)	830	15.91 (14.85 - 17.03)	-	-
2019-01-01	2019-12-31	489	8.85 (8.09 - 9.67)	43	3.75 (2.72 - 5.06)	464	5.74 (5.22 - 6.28)	136	2.59 (2.17 - 3.06)	64	4.33 (3.33 - 5.53)
2020-01-01	2020-12-31	297	5.36 (4.77 - 6.00)	44	3.70 (2.69 - 4.97)	357	4.41 (3.96 - 4.89)	59	1.11 (0.85 - 1.43)	59	3.94 (3.00 - 5.08)
2021-01-01	2021-12-31	338	6.11 (5.48 - 6.80)	32	2.61 (1.78 - 3.68)	152	1.91 (1.61 - 2.23)	24	0.45 (0.29 - 0.67)	37	2.48 (1.74 - 3.41)
2022-01-01	2022-12-31	298	5.38 (4.79 - 6.03)	27	2.38 (1.57 - 3.47)	77	1.06 (0.84 - 1.33)	165	3.09 (2.63 - 3.60)	-	-
2023-01-01	2023-12-31	160	2.88 (2.45 - 3.37)	18	1.60 (0.95 - 2.53)	-	-	258	5.13 (4.52 - 5.79)	-	-
upadacitinib											
2017-01-01	2017-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.34)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2018-01-01	2018-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.33)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	-	-
2019-01-01	2019-12-31	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.32)	0	0.00 (0.00 - 0.05)	0	0.00 (0.00 - 0.07)	0	0.00 (0.00 - 0.25)
2020-01-01	2020-12-31	94	1.70 (1.37 - 2.08)	<5	-	387	4.78 (4.32 - 5.28)	<5	-	<5	-

		Database name									
		FinOMOP-HILMO		IPCI		IQVIA-DA Germany		NLHR		VID	
Incidence start date	Incidence end date	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]	Outcome (N)	Incidence 100,000 person-years [95% CI]
2021-01-01	2021-12-31	286	5.17 (4.59 - 5.80)	10	0.81 (0.39 - 1.50)	661	8.29 (7.67 - 8.95)	114	2.14 (1.77 - 2.57)	113	7.56 (6.23 - 9.09)
2022-01-01	2022-12-31	298	5.38 (4.79 - 6.03)	20	1.76 (1.08 - 2.73)	836	11.56 (10.79 - 12.37)	177	3.31 (2.84 - 3.84)	-	-
2023-01-01	2023-12-31	618	11.14 (10.28 - 12.05)	32	2.84 (1.94 - 4.01)	-	-	252	5.01 (4.41 - 5.67)	-	-

13.2.2 Objective 2: Patient-level characterisation and DUS

Patient characterisation of new users for each JAKi ingredient during 2017-2024 among those without prior exposure to that same JAKi ingredient was performed, and is detailed in **Table 11** to **Table 15**. Overall, abrocitinib users were the youngest based on median age at initiation, with most new users aged 19-40 years old. The majority of the other 4 JAKi ingredients initiators were aged 41-60, except for baricitinib initiators and filgotinib initiators in IQVIA-DA Germany where these were mostly aged 61 or older.

Abrocitinib

Abrocitinib initiators had a median age of 34 (IQR 25-46) in IPCI and 32 (25-46) in NLHR, and were predominantly men in both databases (56.3% and 59.4% respectively). Median treatment duration was 4 (IQR 1-8) months in IPCI and 10 (4-14) months in NLHR. Of all abrocitinib initiators, 31.3% in IPCI and 99.7% in NLHR had a history of atopic dermatitis as their likely indication. In addition, 4.7% and 5.0% of abrocitinib initiators in NLHR had a record of alopecia areata and rheumatoid arthritis respectively.

Among the abrocitinib initiators with atopic dermatitis in NLHR, a 32.7% had received baricitinib prior to abrocitinib initiation.

Table 11. Patient characterisation of abrocitinib initiators.

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
abrocitinib							
Number subjects	-	N	-	16	-	298	-
Age	-	Median [Q25 - Q75]	-	34 [25 - 46]	-	32 [25 - 46]	-
		Mean (SD)	-	37.88 (16.46)	-	36.44 (13.65)	-
		Range	-	18 to 69	-	17 to 75	-
Age group	0 to 3	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	4 to 12	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	13 to 18	N (%)	-	<5	-	7 (2.35%)	-
	19 to 40	N (%)	-	9 (56.25%)	-	187 (62.75%)	-
	41 to 60	N (%)	-	<5	-	84 (28.19%)	-
	61 to 150	N (%)	-	<5	-	20 (6.71%)	-
Sex	Female	N (%)	-	7 (43.75%)	-	121 (40.60%)	-
	Male	N (%)	-	9 (56.25%)	-	177 (59.40%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	4 [1 - 8]	-	10 [4 - 14]	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Mean (SD)	-	6.14 (6.08)	-	9.40 (5.72)	-
		Range	-	1 to 20	-	0 to 20	-
Indications	Alopecia areata	N (%)	-	0 (0.00%)	-	14 (4.70%)	-
	Atopic dermatitis	N (%)	-	5 (31.25%)	-	297 (99.66%)	-
	Axial spondylitis	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Inflammatory bowel disease	N (%)	-	<5	-	<5	-
	Juvenile arthritis	N (%)	-	0 (0.00%)	-	<5	-
	Juvenile idiopathic arthritis	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Psoriatic arthritis	N (%)	-	0 (0.00%)	-	<5	-
	Rheumatoid arthritis	N (%)	-	0 (0.00%)	-	15 (5.03%)	-
Alopecia areata							
Number subjects	-	N	-	-	-	14	-
Age	-	Median [Q25 - Q75]	-	-	-	30 [26 - 50]	-
		Mean (SD)	-	-	-	37.86 (14.64)	-
		Range	-	-	-	22 to 62	-
Age group	0 to 3	N (%)				0 (0.00%)	
	4 to 12	N (%)				0 (0.00%)	
	13 to 18	N (%)				0 (0.00%)	
	19 to 40	N (%)	-	-	-	9 (64.29%)	-
	41 to 60	N (%)	-	-	-	<5	-
	61 to 150	N (%)	-	-	-	<5	-
Sex	Female	N (%)	-	-	-	7 (50.00%)	-
	Male	N (%)	-	-	-	7 (50.00%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	-	10 [3 - 14]	-
		Mean (SD)	-	-	-	9.17 (6.31)	-
		Range	-	-	-	0 to 19	-
Prior jak inhibitor use	Abrocitinib	N (%)	-	-	-	0 (0.00%)	-
	Baricitinib	N (%)	-	-	-	<5	-
	Filgotinib	N (%)	-	-	-	0 (0.00%)	-
	Tofacitinib	N (%)	-	-	-	0 (0.00%)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Upadacitinib	N (%)	-	-	-	0 (0.00%)	-
Indications	Alopecia areata	N (%)	-	-	-	14 (100.00%)	-
	Atopic dermatitis	N (%)	-	-	-	14 (100.00%)	-
	Axial spondylitis	N (%)	-	-	-	0 (0.00%)	-
	Inflammatory bowel disease	N (%)	-	-	-	0 (0.00%)	-
	Juvenile arthritis	N (%)	-	-	-	0 (0.00%)	-
	Juvenile idiopathic arthritis	N (%)	-	-	-	0 (0.00%)	-
	Psoriatic arthritis	N (%)	-	-	-	0 (0.00%)	-
	Rheumatoid arthritis	N (%)	-	-	-	<5	-
Time from indication to treatment initiation (month)	Alopecia areata	Median [Q25 - Q75]	-	-	-	88 [77 - 129]	-
		Mean (SD)	-	-	-	96.20 (44.91)	-
		Range	-	-	-	22 to 176	-
Atopic dermatitis							
Number subjects	-	N	-	5	-	297	-
Age	-	Median [Q25 - Q75]	-	25 [24 - 26]	-	33 [25 - 46]	-
		Mean (SD)	-	26.20 (5.26)	-	36.48 (13.65)	-
		Range	-	21 to 35	-	17 to 75	-
Age group	0 to 3	N (%)		0 (0.00%)		0 (0.00%)	
	4 to 12	N (%)		0 (0.00%)		0 (0.00%)	
	13 to 18	N (%)	-	0 (0.00%)	-	7 (2.36%)	-
	19 to 40	N (%)	-	5 (100.00%)	-	186 (62.63%)	-
	41 to 60	N (%)	-	0 (0.00%)	-	84 (28.28%)	-
	61 to 150	N (%)	-	0 (0.00%)	-	20 (6.73%)	-
Sex	Female	N (%)	-	<5	-	121 (40.74%)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Male	N (%)	-	<5	-	176 (59.26%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	4 [3 - 4]	-	10 [4 - 14]	-
		Mean (SD)	-	3.84 (1.97)	-	9.43 (5.72)	-
		Range	-	1 to 6	-	0 to 20	-
Prior jak inhibitor use	Abrocitinib	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Baricitinib	N (%)	-	<5	-	97 (32.66%)	-
	Filgotinib	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Tofacitinib	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Upadacitinib	N (%)	-	<5	-	<5	-
Indications	Alopecia areata	N (%)	-	0 (0.00%)	-	14 (4.71%)	-
	Atopic dermatitis	N (%)	-	5 (100.00%)	-	297 (100.00%)	-
	Axial spondylitis	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Inflammatory bowel disease	N (%)	-	<5	-	<5	-
	Juvenile arthritis	N (%)	-	0 (0.00%)	-	<5	-
	Juvenile idiopathic arthritis	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Psoriatic arthritis	N (%)	-	0 (0.00%)	-	<5	-
	Rheumatoid arthritis	N (%)	-	0 (0.00%)	-	15 (5.05%)	-
Time from indication to treatment initiation (month)	Atopic dermatitis	Median [Q25 - Q75]	-	55 [32 - 83]	-	145 [85 - 171]	-
		Mean (SD)	-	60.88 (34.99)	-	126.78 (50.20)	-
		Range	-	26 to 109	-	11 to 189	-
Inflammatory bowel disease							
Number subjects	-	N	-	<5	-	<5	-
Age	-	Median [Q25 - Q75]	-	<5	-	<5	-
		Mean (SD)	-	<5	-	<5	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Range	-	<5	-	<5	-
Age group	0 to 3	N (%)		0 (0.00%)		0 (0.00%)	
	4 to 12	N (%)		0 (0.00%)		0 (0.00%)	
	13 to 18	N (%)		0 (0.00%)		0 (0.00%)	
	19 to 40	N (%)	-	<5	-	<5	-
	41 to 60	N (%)		0 (0.00%)		0 (0.00%)	
	61 to 150	N (%)		0 (0.00%)		0 (0.00%)	
Sex	Female	N (%)	-	<5	-	<5	-
	Male	N (%)	-	0 (0.00%)	-	<5	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	-	-	-
		Mean (SD)	-	-	-	-	-
		Range	-	-	-	-	-
Prior jak inhibitor use	Abrocitinib	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Baricitinib	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Filgotinib	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Tofacitinib	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Upadacitinib	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
Indications	Alopecia areata	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Atopic dermatitis	N (%)	-	<5	-	<5	-
	Axial spondylitis	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Inflammatory bowel disease	N (%)	-	<5	-	<5	-
	Juvenile arthritis	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Juvenile idiopathic arthritis	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Psoriatic arthritis	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
	Rheumatoid arthritis	N (%)	-	0 (0.00%)	-	0 (0.00%)	-
Time from indication to treatment initiation (month)	Inflammatory bowel disease	Median [Q25 - Q75]	-	-	-	-	-
		Mean (SD)	-	-	-	-	-
		Range	-	-	-	-	-
Juvenile arthritis							

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Number subjects	-	N	-		-	<5	-
Age	-	Median [Q25 - Q75]	-		-	<5	-
		Mean (SD)	-		-	<5	-
		Range	-		-	<5	-
Age group	0 to 3	N (%)				0 (0.00%)	
	4 to 12	N (%)				0 (0.00%)	
	13 to 18	N (%)				0 (0.00%)	
	19 to 40	N (%)	-		-	<5	-
	41 to 60	N (%)				0 (0.00%)	
	61 to 150	N (%)				0 (0.00%)	
Sex	Female	N (%)	-		-	<5	-
	Male	N (%)	-		-	<5	-
Treatment duration (month)	-	Median [Q25 - Q75]	-		-	-	-
		Mean (SD)	-		-	-	-
		Range	-		-	-	-
Prior jak inhibitor use	Abrocitinib	N (%)	-		-	0 (0.00%)	-
	Baricitinib	N (%)	-		-	<5	-
	Filgotinib	N (%)	-		-	0 (0.00%)	-
	Tofacitinib	N (%)	-		-	0 (0.00%)	-
	Upadacitinib	N (%)	-		-	0 (0.00%)	-
Indications	Alopecia areata	N (%)	-		-	0 (0.00%)	-
	Atopic dermatitis	N (%)	-		-	<5	-
	Axial spondylitis	N (%)	-		-	0 (0.00%)	-
	Inflammatory bowel disease	N (%)	-		-	0 (0.00%)	-
	Juvenile arthritis	N (%)	-		-	<5	-
	Juvenile idiopathic arthritis	N (%)	-		-	0 (0.00%)	-
	Psoriatic arthritis	N (%)	-		-	0 (0.00%)	-
	Rheumatoid arthritis	N (%)	-		-	0 (0.00%)	-
Time from indication to treatment initiation (month)	Juvenile arthritis	Median [Q25 - Q75]	-		-	-	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Mean (SD)	-		-	-	-
		Range	-		-	-	-
Psoriatic arthritis							
Number subjects	-	N	-	-	-	<5	-
Age	-	Median [Q25 - Q75]	-	-	-	<5	-
		Mean (SD)	-	-	-	<5	-
		Range	-	-	-	<5	-
Age group	0 to 3	N (%)				0 (0.00%)	
	4 to 12	N (%)				0 (0.00%)	
	13 to 18	N (%)				0 (0.00%)	
	19 to 40	N (%)	-	-	-	<5	-
	41 to 60	N (%)	-	-	-	<5	-
	61 to 150	N (%)				0 (0.00%)	
Sex	Female	N (%)	-		-	<5	-
	Male	N (%)	-	-	-	<5	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	-	-	-
		Mean (SD)	-	-	-	-	-
		Range	-	-	-	-	-
Prior jak inhibitor use	Abrocitinib	N (%)	-	-	-	0 (0.00%)	-
	Baricitinib	N (%)	-	-	-	<5	-
	Filgotinib	N (%)	-	-	-	0 (0.00%)	-
	Tofacitinib	N (%)	-	-	-	0 (0.00%)	-
	Upadacitinib	N (%)	-	-	-	0 (0.00%)	-
Indications	Alopecia areata	N (%)	-	-	-	0 (0.00%)	-
	Atopic dermatitis	N (%)	-	-	-	<5	-
	Axial spondylitis	N (%)	-	-	-	0 (0.00%)	-
	Inflammatory bowel disease	N (%)	-	-	-	0 (0.00%)	-
	Juvenile arthritis	N (%)	-	-	-	0 (0.00%)	-
	Juvenile idiopathic arthritis	N (%)	-	-	-	0 (0.00%)	-
	Psoriatic arthritis	N (%)	-	-	-	<5	-
	Rheumatoid arthritis	N (%)	-	-	-	<5	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Time from indication to treatment initiation (month)	Psoriatic arthritis	Median [Q25 - Q75]	-	-	-	-	-
		Mean (SD)	-	-	-	-	-
		Range	-	-	-	-	-
Rheumatoid arthritis							
Number subjects	-	N	-	-	-	15	-
Age	-	Median [Q25 - Q75]	-	-	-	49 [30 - 52]	-
		Mean (SD)	-	-	-	43.13 (13.84)	-
		Range	-	-	-	18 to 62	-
Age group	0 to 3	N (%)				0 (0.00%)	
	4 to 12	N (%)				0 (0.00%)	
	13 to 18	N (%)	-	-	-	<5	-
	19 to 40	N (%)	-	-	-	<5	-
	41 to 60	N (%)	-	-	-	9 (60.00%)	-
	61 to 150	N (%)	-	-	-	<5	-
Sex	Female	N (%)	-	-	-	<5	-
	Male	N (%)	-	-	-	11 (73.33%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	-	12 [8 - 15]	-
		Mean (SD)	-	-	-	11.01 (5.65)	-
		Range	-	-	-	2 to 18	-
Prior jak inhibitor use	Abrocitinib	N (%)	-	-	-	0 (0.00%)	-
	Baricitinib	N (%)	-	-	-	8 (53.33%)	-
	Filgotinib	N (%)	-	-	-	0 (0.00%)	-
	Tofacitinib	N (%)	-	-	-	0 (0.00%)	-
	Upadacitinib	N (%)	-	-	-	0 (0.00%)	-
Indications	Alopecia areata	N (%)	-	-	-	<5	-
	Atopic dermatitis	N (%)	-	-	-	15 (100.00%)	-
	Axial spondylitis	N (%)	-	-	-	0 (0.00%)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Inflammatory bowel disease	N (%)	-	-	-	0 (0.00%)	-
	Juvenile arthritis	N (%)	-	-	-	0 (0.00%)	-
	Juvenile idiopathic arthritis	N (%)	-	-	-	0 (0.00%)	-
	Psoriatic arthritis	N (%)	-	-	-	<5	-
	Rheumatoid arthritis	N (%)	-	-	-	15 (100.00%)	-
Time from indication to treatment initiation (month)	Rheumatoid arthritis	Median [Q25 - Q75]	-	-	-	26 [11 - 49]	-
		Mean (SD)	-	-	-	32.76 (27.17)	-
		Range	-	-	-	3 to 98	-

Baricitinib

The median age of baricitinib initiators ranged from 50 (45-54) years old in VID to 71 (61-78) in IQVIA DA Germany. There was a predominance of female baricitinib initiators in all the contributing databases. Median treatment duration ranged from 4 (1-18) months to 9 (4-29) months. Most of the participants (45.5% to 93.3% across databases) had a history of rheumatoid arthritis as their likely indication for baricitinib initiation. Among baricitinib initiators with rheumatoid arthritis, 6.9% - 16.1% of them had previously taken tofacitinib.

In addition to rheumatoid arthritis, a considerable proportion of baricitinib initiators had a history of atopic dermatitis in NLHR (36.4%) and axial spondylitis in IPCI (20.0%) as potential indications.

Table 12. Patient characterisation of baricitinib initiators.

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
baricitinib							
Number subjects	-	N	1,205	110	630	1,538	30
Age	-	Median [Q25 - Q75]	57 [44 - 67]	58 [49 - 69]	71 [61 - 78]	54 [38 - 66]	50 [45 - 54]
		Mean (SD)	54.75 (15.59)	58.33 (14.81)	68.62 (12.99)	51.61 (17.33)	48.97 (6.62)
		Range	4 to 92	19 to 89	17.00 to 92.00	3 to 90	26 to 59

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	4 to 12	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	13 to 18	N (%)	7 (0.58%)	0 (0.00%)	<5	22 (1.43%)	0 (0.00%)
	19 to 40	N (%)	224 (18.59%)	11 (10.00%)	26 (4.13%)	415 (26.98%)	<5
	41 to 60	N (%)	495 (41.08%)	51 (46.36%)	117 (18.57%)	556 (36.15%)	28 (93.33%)
	61 to 150	N (%)	477 (39.59%)	48 (43.64%)	486 (77.14%)	543 (35.31%)	0 (0.00%)
Sex	Female	N (%)	957 (79.42%)	80 (72.73%)	509 (80.79%)	1,048 (68.14%)	30 (100.00%)
	Male	N (%)	248 (20.58%)	30 (27.27%)	121 (19.21%)	490 (31.86%)	0
Treatment duration (month)	-	Median [Q25 - Q75]	-	4 [1 - 18]	6 [3 - 14]	9 [4 - 29]	-
		Mean (SD)	-	12.22 (16.56)	11.30 (14.00)	17.45 (16.82)	-
		Range	-	0 to 79	0 to 83	0 to 71	-
Indications	Alopecia areata	N (%)	34 (2.82%)	<5	12 (1.90%)	63 (4.10%)	<5
	Atopic dermatitis	N (%)	132 (10.95%)	10 (9.09%)	36 (5.71%)	560 (36.41%)	<5
	Axial spondylitis	N (%)	16 (1.33%)	22 (20.00%)	5 (0.79%)	43 (2.80%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	26 (2.16%)	<5	6 (0.95%)	35 (2.28%)	0 (0.00%)
	Juvenile arthritis	N (%)	99 (8.22%)	0 (0.00%)	<5	128 (8.32%)	<5
	Juvenile idiopathic arthritis	N (%)	62 (5.15%)	0 (0.00%)	<5	34 (2.21%)	0 (0.00%)
	Psoriatic arthritis	N (%)	34 (2.82%)	<5	16 (2.54%)	129 (8.39%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	1,057 (87.72%)	50 (45.45%)	539 (85.56%)	1,109 (72.11%)	28 (93.33%)
Alopecia areata							
Number subjects	-	N	34	<5	12	63	<5
Age	-	Median [Q25 - Q75]	42 [29 - 54]	<5	61.00 [54.50 - 65.75]	44 [31 - 53]	<5
		Mean (SD)	41.65 (14.80)	<5	58.50 (12.00)	43.30 (14.46)	<5
		Range	16 to 75	<5	36.00 to 74.00	18 to 80	<5

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	19 to 40	N (%)	15 (44.12%)	0 (0.00%)	<5	24 (38.10%)	0 (0.00%)
	41 to 60	N (%)	14 (41.18%)	<5	<5	30 (47.62%)	<5
	61 to 150	N (%)	<5	0 (0.00%)	6 (50.00%)	8 (12.70%)	0 (0.00%)
Sex	Female	N (%)	28 (82.35%)	<5	11 (91.67%)	38 (60.32%)	<5
	Male	N (%)	6 (17.65%)	0 (0.00%)	<5	25 (39.68%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	3.55 [0.92 - 5.06]	7 [3 - 12]	-
		Mean (SD)	-	-	5.82 (8.87)	10.55 (11.66)	-
		Range	-	-	0.92 to 33.25	0 to 53	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Baricitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	5 (7.94%)	0 (0.00%)
	Upadacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
Indications	Alopecia areata	N (%)	34 (100.00%)	<5	12 (100.00%)	63 (100.00%)	<5
	Atopic dermatitis	N (%)	8 (23.53%)	0 (0.00%)	7 (58.33%)	33 (52.38%)	0 (0.00%)
	Axial spondylitis	N (%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Juvenile arthritis	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Psoriatic arthritis	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Rheumatoid arthritis	N (%)	10 (29.41%)	0 (0.00%)	<5	21 (33.33%)	<5
Time from indication to treatment initiation (month)	Alopecia areata	Median [Q25 - Q75]	14 [3 - 42]	-	55 [25 - 117]	66 [20 - 110]	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Mean (SD)	33.64 (41.76)	-	66.86 (54.51)	69.68 (53.95)	-
		Range	0 to 143	-	0 to 159	0 to 190	-
Atopic dermatitis							
Number subjects	-	N	132	10	36	560	<5
Age	-	Median [Q25 - Q75]	41 [27 - 53]	36 [27 - 60]	55.00 [36.00 - 66.25]	40 [28 - 56]	<5
		Mean (SD)	42.15 (16.61)	44.90 (22.78)	51.89 (20.52)	42.59 (17.19)	<5
		Range	18 to 81	20 to 86	17.00 to 82.00	3 to 90	<5
Age group	0 to 3	N (%)	-	-	-	<5	-
	4 to 12	N (%)	-	-	-	<5	-
	13 to 18	N (%)	<5	-	<5	16 (2.86%)	-
	19 to 40	N (%)	62 (46.97%)	6 (60.00%)	12 (33.33%)	264 (47.14%)	-
	41 to 60	N (%)	47 (35.61%)	<5	10 (27.78%)	175 (31.25%)	<5
	61 to 150	N (%)	20 (15.15%)	<5	13 (36.11%)	103 (18.39%)	-
Sex	Female	N (%)	90 (68.18%)	6 (60.00%)	24 (66.67%)	295 (52.68%)	<5
	Male	N (%)	42 (31.82%)	<5	12 (33.33%)	265 (47.32%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	6 [2 - 17]	2.14 [0.92 - 6.44]	7 [3 - 18]	-
		Mean (SD)	-	9.26 (8.87)	4.83 (6.08)	11.73 (11.63)	-
		Range	-	0 to 24	0.46 to 29.44	0 to 57	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	37 (6.61%)	0 (0.00%)
	Baricitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	5 (3.79%)	0 (0.00%)	0 (0.00%)	19 (3.39%)	0 (0.00%)
	Upadacitinib	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
Indications	Alopecia areata	N (%)	8 (6.06%)	0 (0.00%)	7 (19.44%)	33 (5.89%)	0 (0.00%)
	Atopic dermatitis	N (%)	132 (100.00%)	10 (100.00%)	36 (100.00%)	560 (100.00%)	<5
	Axial spondylitis	N (%)	<5	<5	0 (0.00%)	7 (1.25%)	0 (0.00%)

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Inflammatory bowel disease	N (%)	6 (4.55%)	<5	0 (0.00%)	11 (1.96%)	0 (0.00%)
	Juvenile arthritis	N (%)	10 (7.58%)	0 (0.00%)	0 (0.00%)	23 (4.11%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	6 (4.55%)	0 (0.00%)	0 (0.00%)	5 (0.89%)	0 (0.00%)
	Psoriatic arthritis	N (%)	<5	<5	0 (0.00%)	26 (4.64%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	52 (39.39%)	<5	<5	155 (27.68%)	<5
Time from indication to treatment initiation (month)	Atopic dermatitis	Median [Q25 - Q75]	84 [45 - 125]	62 [46 - 76]	33 [18 - 130]	118 [48 - 158]	-
		Mean (SD)	81.58 (45.11)	57.69 (26.28)	67.42 (64.33)	104.90 (58.74)	-
		Range	0 to 159	3 to 92	0 to 209	0 to 190	-
Axial spondylitis							
Number subjects	-	N	67	64	53	153	8
Age	-	Median [Q25 - Q75]	42 [36 - 54]	54 [48 - 68]	54.00 [42.00 - 62.00]	48 [36 - 56]	48 [45 - 53]
		Mean (SD)	44.36 (14.45)	54.89 (16.98)	52.49 (13.56)	46.82 (13.39)	48.88 (6.40)
		Range	17 to 80	12 to 90	30.00 to 90.00	17 to 80	39 to 59
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	<5	<5	0 (0.00%)	<5	0 (0.00%)
	19 to 40	N (%)	25 (37.31%)	11 (17.19%)	10 (18.87%)	50 (32.68%)	<5
	41 to 60	N (%)	29 (43.28%)	27 (42.19%)	29 (54.72%)	77 (50.33%)	7 (87.50%)
	61 to 150	N (%)	11 (16.42%)	24 (37.50%)	14 (26.42%)	25 (16.34%)	0 (0.00%)
Sex	Female	N (%)	37 (55.22%)	41 (64.06%)	33 (62.26%)	84 (54.90%)	8 (100.00%)
	Male	N (%)	30 (44.78%)	23 (35.94%)	20 (37.74%)	69 (45.10%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	3 [1 - 6]	5.98 [2.99 - 11.96]	5 [3 - 9]	-
		Mean (SD)	-	7.23 (12.62)	11.89 (16.43)	7.75 (10.02)	-
		Range	-	0 to 57	0.92 to 82.43	0 to 61	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	<5	<5	0 (0.00%)	5 (3.27%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	<5	0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Upadacitinib	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
Indications	Alopecia areata	N (%)	<5	<5	<5	6 (3.92%)	<5
	Atopic dermatitis	N (%)	7 (10.45%)	<5	0 (0.00%)	25 (16.34%)	0 (0.00%)
	Axial spondylitis	N (%)	67 (100.00%)	64 (100.00%)	53 (100.00%)	153 (100.00%)	8 (100.00%)
	Inflammatory bowel disease	N (%)	17 (25.37%)	6 (9.38%)	<5	29 (18.95%)	<5
	Juvenile arthritis	N (%)	9 (13.43%)	0 (0.00%)	<5	21 (13.73%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
	Psoriatic arthritis	N (%)	13 (19.40%)	<5	23 (43.40%)	32 (20.92%)	5 (62.50%)
	Rheumatoid arthritis	N (%)	33 (49.25%)	62 (96.88%)	32 (60.38%)	146 (95.42%)	<5
Time from indication to treatment initiation (month)	Axial spondylitis	Median [Q25 - Q75]	85 [52 - 108]	51 [22 - 75]	46 [30 - 90]	84 [33 - 130]	26 [14 - 35]
		Mean (SD)	82.10 (38.18)	53.26 (36.80)	62.95 (45.73)	87.39 (57.40)	24.11 (12.12)
		Range	5 to 149	0 to 163	6 to 173	0 to 190	7 to 39
Inflammatory bowel disease							
Number subjects	-	N	681	29	231	235	13
Age	-	Median [Q25 - Q75]	37 [27 - 50]	39 [29 - 51]	44.00 [33.00 - 55.00]	41 [28 - 55]	43 [32 - 48]
		Mean (SD)	38.91 (14.53)	41.41 (15.52)	44.47 (14.27)	41.63 (15.61)	39.54 (10.56)
		Range	9 to 85	19 to 80	20.00 to 84.00	14 to 79	20 to 53
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	22 (3.23%)	0 (0.00%)	0 (0.00%)	11 (4.68%)	0 (0.00%)

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	19 to 40	N (%)	379 (55.65%)	15 (51.72%)	102 (44.16%)	102 (43.40%)	6 (46.15%)
	41 to 60	N (%)	219 (32.16%)	11 (37.93%)	103 (44.59%)	90 (38.30%)	7 (53.85%)
	61 to 150	N (%)	59 (8.66%)	<5	26 (11.26%)	32 (13.62%)	0 (0.00%)
Sex	Female	N (%)	254 (37.30%)	14 (48.28%)	99 (42.86%)	115 (48.94%)	13 (100.00%)
	Male	N (%)	427 (62.70%)	15 (51.72%)	132 (57.14%)	120 (51.06%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	2 [1 - 5]	8.31 [2.99 - 23.00]	8 [4 - 15]	-
		Mean (SD)	-	5.49 (9.23)	15.28 (16.03)	12.29 (14.00)	-
		Range	-	0 to 36	0.92 to 69.13	0 to 71	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Tofacitinib	N (%)	<5	<5	0 (0.00%)	<5	0 (0.00%)
	Upadacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	0 (0.00%)	0 (0.00%)	<5	9 (3.83%)	0 (0.00%)
	Atopic dermatitis	N (%)	48 (7.05%)	<5	<5	49 (20.85%)	0 (0.00%)
	Axial spondylitis	N (%)	17 (2.50%)	6 (20.69%)	<5	29 (12.34%)	<5
	Inflammatory bowel disease	N (%)	681 (100.00%)	29 (100.00%)	231 (100.00%)	235 (100.00%)	13 (100.00%)
	Juvenile arthritis	N (%)	25 (3.67%)	0 (0.00%)	0 (0.00%)	13 (5.53%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	14 (2.06%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Psoriatic arthritis	N (%)	19 (2.79%)	0 (0.00%)	<5	43 (18.30%)	<5
	Rheumatoid arthritis	N (%)	55 (8.08%)	7 (24.14%)	18 (7.79%)	95 (40.43%)	5 (38.46%)
Time from indication to treatment initiation (month)	Inflammatory bowel disease	Median [Q25 - Q75]	53 [22 - 102]	56 [17 - 76]	48 [25 - 89]	64 [32 - 114]	18 [10 - 24]
		Mean (SD)	61.96 (42.71)	54.28 (37.52)	64.39 (53.06)	75.63 (52.24)	17.12 (9.69)
		Range	0 to 153	2 to 119	0 to 246	1 to 189	1 to 35

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Juvenile arthritis							
Number subjects	-	N	99		<5	128	<5
Age	-	Median [Q25 - Q75]	37 [26 - 51]		<5	38 [26 - 54]	<5
		Mean (SD)	39.28 (14.96)		<5	41.43 (17.60)	<5
		Range	11 to 76		<5	3 to 85	<5
Age group	0 to 3	N (%)	0 (0.00%)		0 (0.00%)	<5	0 (0.00%)
	4 to 12	N (%)	<5		0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	<5		0 (0.00%)	5 (3.91%)	0 (0.00%)
	19 to 40	N (%)	51 (51.52%)		<5	62 (48.44%)	<5
	41 to 60	N (%)	33 (33.33%)		<5	39 (30.47%)	<5
	61 to 150	N (%)	10 (10.10%)		<5	21 (16.41%)	0 (0.00%)
Sex	Female	N (%)	86 (86.87%)		<5	108 (84.38%)	<5
	Male	N (%)	13 (13.13%)		0 (0.00%)	20 (15.62%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-		-	10 [4 - 34]	-
		Mean (SD)	-		-	18.73 (17.64)	-
		Range	-		-	1 to 58	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)		0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	10 (10.10%)		0 (0.00%)	24 (18.75%)	0 (0.00%)
	Upadacitinib	N (%)	<5		0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	<5		0 (0.00%)	<5	0 (0.00%)
	Atopic dermatitis	N (%)	10 (10.10%)		0 (0.00%)	23 (17.97%)	0 (0.00%)
	Axial spondylitis	N (%)	6 (6.06%)		0 (0.00%)	9 (7.03%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	<5		0 (0.00%)	5 (3.91%)	0 (0.00%)
	Juvenile arthritis	N (%)	99 (100.00%)		<5	128 (100.00%)	<5
	Juvenile idiopathic arthritis	N (%)	62 (62.63%)		<5	34 (26.56%)	0 (0.00%)

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Psoriatic arthritis	N (%)	<5		0 (0.00%)	11 (8.59%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	82 (82.83%)		0 (0.00%)	125 (97.66%)	<5
Time from indication to treatment initiation (month)	Juvenile arthritis	Median [Q25 - Q75]	93 [82 - 108]		-	108 [49 - 138]	-
		Mean (SD)	89.86 (31.15)		-	93.21 (52.24)	-
		Range	0 to 154		-	0 to 190	-
Juvenile idiopathic arthritis							
Number subjects	-	N	138		<5	36	-
Age	-	Median [Q25 - Q75]	20 [14 - 32]		<5	24 [21 - 30]	-
		Mean (SD)	23.96 (13.48)		<5	26.61 (7.89)	-
		Range	2 to 60		<5	14 to 49	-
Age group	0 to 3	N (%)	<5		0 (0.00%)	0 (0.00%)	-
	4 to 12	N (%)	26 (18.84%)		0 (0.00%)	0 (0.00%)	-
	13 to 18	N (%)	31 (22.46%)		0 (0.00%)	<5	-
	19 to 40	N (%)	61 (44.20%)		<5	31 (86.11%)	-
	41 to 60	N (%)	19 (13.77%)		<5	<5	-
	61 to 150	N (%)	0 (0.00%)		<5	0 (0.00%)	-
Sex	Female	N (%)	114 (82.61%)		0 (0.00%)	30 (83.33%)	-
	Male	N (%)	24 (17.39%)		<5	6 (16.67%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-		-	7 [4 - 16]	-
		Mean (SD)	-		-	11.30 (13.04)	-
		Range	-		-	0 to 60	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
	Filgotinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
	Tofacitinib	N (%)	6 (9.68%)		0 (0.00%)	5 (14.71%)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Upadacitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
Indications	Alopecia areata	N (%)	<5		0 (0.00%)	<5	-
	Atopic dermatitis	N (%)	15 (10.87%)		<5	5 (13.89%)	-
	Axial spondylitis	N (%)	<5		<5	<5	-
	Inflammatory bowel disease	N (%)	14 (10.14%)		0 (0.00%)	<5	-
	Juvenile arthritis	N (%)	138 (100.00%)		<5	36 (100.00%)	-
	Juvenile idiopathic arthritis	N (%)	138 (100.00%)		<5	36 (100.00%)	-
	Psoriatic arthritis	N (%)	13 (9.42%)		<5	<5	-
	Rheumatoid arthritis	N (%)	83 (60.14%)		<5	36 (100.00%)	-
Time from indication to treatment initiation (month)	Juvenile idiopathic arthritis	Median [Q25 - Q75]	89 [44 - 121]		-	90 [53 - 125]	-
		Mean (SD)	82.40 (45.08)		-	94.92 (52.83)	-
		Range	0 to 153		-	7 to 189	-
Psoriatic arthritis							
Number subjects	-	N	339	<5	268	287	42
Age	-	Median [Q25 - Q75]	53 [44 - 62]	<5	56.00 [48.00 - 64.00]	53 [42 - 61]	48 [39 - 52]
		Mean (SD)	51.81 (14.79)	<5	55.49 (12.30)	51.34 (13.42)	46.26 (7.75)
		Range	9 to 85	<5	17.00 to 81.00	18 to 80	31 to 59
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	7 (2.06%)	0 (0.00%)	<5	<5	0 (0.00%)
	19 to 40	N (%)	59 (17.40%)	<5	27 (10.07%)	66 (23.00%)	12 (28.57%)
	41 to 60	N (%)	171 (50.44%)	<5	150 (55.97%)	143 (49.83%)	30 (71.43%)
	61 to 150	N (%)	99 (29.20%)	<5	90 (33.58%)	77 (26.83%)	0 (0.00%)
Sex	Female	N (%)	214 (63.13%)	<5	198 (73.88%)	189 (65.85%)	42 (100.00%)

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Male	N (%)	125 (36.87%)	0 (0.00%)	70 (26.12%)	98 (34.15%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	6.05 [2.99 - 16.99]	5 [3 - 13]	-
		Mean (SD)	-	-	13.17 (16.16)	11.56 (15.05)	-
		Range	-	-	0.92 to 82.43	0 to 68	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	7 (2.06%)	0 (0.00%)	0 (0.00%)	5 (1.74%)	0 (0.00%)
	Filgotinib	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Upadacitinib	N (%)	6 (1.77%)	0 (0.00%)	7 (2.61%)	9 (3.14%)	0 (0.00%)
Indications	Alopecia areata	N (%)	<5	0 (0.00%)	5 (1.87%)	10 (3.48%)	0 (0.00%)
	Atopic dermatitis	N (%)	13 (3.83%)	0 (0.00%)	<5	68 (23.69%)	<5
	Axial spondylitis	N (%)	13 (3.83%)	<5	23 (8.58%)	32 (11.15%)	5 (11.90%)
	Inflammatory bowel disease	N (%)	19 (5.60%)	0 (0.00%)	<5	43 (14.98%)	<5
	Juvenile arthritis	N (%)	31 (9.14%)	0 (0.00%)	<5	31 (10.80%)	<5
	Juvenile idiopathic arthritis	N (%)	13 (3.83%)	0 (0.00%)	<5	<5	0 (0.00%)
	Psoriatic arthritis	N (%)	339 (100.00%)	<5	268 (100.00%)	287 (100.00%)	42 (100.00%)
	Rheumatoid arthritis	N (%)	151 (44.54%)	<5	110 (41.04%)	262 (91.29%)	11 (26.19%)
Time from indication to treatment initiation (month)	Psoriatic arthritis	Median [Q25 - Q75]	80 [32 - 99]	-	42 [22 - 88]	89 [42 - 125]	21 [16 - 29]
		Mean (SD)	69.36 (39.52)	-	63.77 (59.20)	87.26 (52.70)	22.05 (10.91)
		Range	0 to 147	-	0 to 312	0 to 189	1 to 43
Rheumatoid arthritis							
Number subjects	-	N	1,202	90	1,153	1,290	103
Age	-	Median [Q25 - Q75]	57 [47 - 66]	56 [49 - 71]	61.00 [53.00 - 69.00]	55 [44 - 65]	49 [44 - 53]

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Mean (SD)	54.46 (15.15)	56.92 (16.32)	60.72 (12.59)	53.96 (15.12)	47.24 (7.48)
		Range	5 to 84	12 to 90	19.00 to 92.00	14 to 89	25 to 58
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	15 (1.25%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	17 (1.41%)	<5	0 (0.00%)	9 (0.70%)	0 (0.00%)
	19 to 40	N (%)	171 (14.23%)	13 (14.44%)	69 (5.98%)	253 (19.61%)	22 (21.36%)
	41 to 60	N (%)	534 (44.43%)	37 (41.11%)	507 (43.97%)	549 (42.56%)	81 (78.64%)
	61 to 150	N (%)	465 (38.69%)	38 (42.22%)	577 (50.04%)	479 (37.13%)	0 (0.00%)
Sex	Female	N (%)	932 (77.54%)	57 (63.33%)	908 (78.75%)	948 (73.49%)	103 (100.00%)
	Male	N (%)	270 (22.46%)	33 (36.67%)	245 (21.25%)	342 (26.51%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	3 [1 - 8]	7.69 [2.99 - 22.87]	7 [3 - 19]	-
		Mean (SD)	-	7.52 (11.66)	15.54 (18.07)	14.88 (17.51)	-
		Range	-	0 to 57	0.92 to 82.43	0 to 70	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Filgotinib	N (%)	<5	0 (0.00%)	6 (1.11%)	18 (1.62%)	0 (0.00%)
	Tofacitinib	N (%)	112 (10.60%)	7 (14.00%)	37 (6.86%)	178 (16.05%)	0 (0.00%)
	Upadacitinib	N (%)	13 (1.23%)	<5	17 (3.15%)	<5	0 (0.00%)
Indications	Alopecia areata	N (%)	5 (0.42%)	<5	16 (1.39%)	35 (2.71%)	9 (8.74%)
	Atopic dermatitis	N (%)	60 (4.99%)	<5	5 (0.43%)	168 (13.02%)	<5
	Axial spondylitis	N (%)	33 (2.75%)	62 (68.89%)	32 (2.78%)	146 (11.32%)	<5
	Inflammatory bowel disease	N (%)	55 (4.58%)	7 (7.78%)	18 (1.56%)	95 (7.36%)	5 (4.85%)
	Juvenile arthritis	N (%)	139 (11.56%)	0 (0.00%)	11 (0.95%)	151 (11.71%)	<5
	Juvenile idiopathic arthritis	N (%)	83 (6.91%)	0 (0.00%)	<5	36 (2.79%)	0 (0.00%)

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Psoriatic arthritis	N (%)	151 (12.56%)	<5	110 (9.54%)	262 (20.31%)	11 (10.68%)
	Rheumatoid arthritis	N (%)	1,202 (100.00%)	90 (100.00%)	1,153 (100.00%)	1,290 (100.00%)	103 (100.00%)
Time from indication to treatment initiation (month)	Rheumatoid arthritis	Median [Q25 - Q75]	81 [45 - 94]	52 [28 - 82]	56 [30 - 107]	105 [47 - 126]	17 [12 - 28]
		Mean (SD)	71.62 (34.20)	58.41 (38.74)	71.13 (52.57)	89.89 (48.20)	19.68 (11.27)
		Range	0 to 154	0 to 163	0 to 331	0 to 190	0 to 46

Filgotinib

The median age of filgotinib initiators ranged from 47 (37-60) in FinOMOP-HILMO to 60 (51-68) in IQVIA-DA Germany. Similar to baricitinib, most filgotinib initiators were female, ranging from 62.5% in IPCI - 75.5% in IQVIA-DA Germany). The median duration of treatment ranged from 3 (2-11) months in IPCI to 9 (4-19) months in IQVIA DA Germany. Rheumatoid arthritis remained the most common indication (31.9% in IPCI to 81.9% in IQVIA-DA Germany), followed by inflammatory bowel disease (15.2% in IQVIA DA Germany to 47.4% in FinOMOP-HILMO).

Among filgotinib initiators with rheumatoid arthritis, a considerable proportion of them had previously received baricitinib (4% in IQVIA-DA Germany to 30% in FinOMOP-HILMO), tofacitinib (14% in IQVIA-DA Germany to 24% in FinOMOP-HILMO) or upadacitinib (1.4% in NLHR to 20% in FinOMOP-HILMO). As for filgotinib initators with inflammatory bowel disease, 4.4% (NLHR)-10.5% (IQVIA-DA Germany) of them had previously received tofacitinib.

Table 13. Patient characterisation of filgotinib initiators.

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
filgotinib							
Number subjects	-	N	156	72	752	1,560	<5
Age	-	Median [Q25 - Q75]	47 [37 - 60]	57 [48 - 62]	60 [51 - 68]	51 [36 - 64]	<5
		Mean (SD)	48.36 (15.06)	53.62 (14.96)	58.88 (13.64)	50.18 (16.78)	<5
		Range	17 to 78	19 to 76	18 to 88	17 to 91	<5
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	13 to 18	N (%)	<5	0 (0.00%)	<5	10 (0.64%)	0 (0.00%)
	19 to 40	N (%)	45 (28.85%)	14 (19.44%)	80 (10.64%)	471 (30.19%)	0 (0.00%)
	41 to 60	N (%)	73 (46.79%)	35 (48.61%)	304 (40.43%)	609 (39.04%)	<5
	61 to 150	N (%)	37 (23.72%)	23 (31.94%)	367 (48.80%)	470 (30.13%)	0 (0.00%)
Sex	Female	N (%)	100 (64.10%)	45 (62.50%)	568 (75.53%)	1,058 (67.82%)	<5
	Male	N (%)	56 (35.90%)	27 (37.50%)	184 (24.47%)	502 (32.18%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	3 [2 - 11]	9 [4 - 19]	8 [3 - 16]	-
		Mean (SD)	-	7.85 (8.90)	12.35 (10.55)	10.51 (8.84)	-
		Range	-	0 to 36	1 to 44	0 to 34	-
Indications	Alopecia areata	N (%)	0 (0.00%)	0 (0.00%)	<5	51 (3.27%)	0 (0.00%)
	Atopic dermatitis	N (%)	9 (5.77%)	<5	9 (1.20%)	278 (17.82%)	0 (0.00%)
	Axial spondylitis	N (%)	0 (0.00%)	12 (16.67%)	15 (1.99%)	71 (4.55%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	74 (47.44%)	14 (19.44%)	114 (15.16%)	499 (31.99%)	0 (0.00%)
	Juvenile arthritis	N (%)	14 (8.97%)	0 (0.00%)	7 (0.93%)	133 (8.53%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	9 (5.77%)	0 (0.00%)	<5	35 (2.24%)	0 (0.00%)
	Psoriatic arthritis	N (%)	5 (3.21%)	0 (0.00%)	35 (4.65%)	168 (10.77%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	80 (51.28%)	23 (31.94%)	616 (81.91%)	1,150 (73.72%)	0 (0.00%)
Alopecia areata							
Number subjects	-	N	-	-	<5	51	-
Age	-	Median [Q25 - Q75]	-	-	<5	43 [34 - 54]	-
		Mean (SD)	-	-	<5	44.18 (14.49)	-
		Range	-	-	<5	20 to 75	-
Age group	0 to 3	N (%)			0 (0.00%)	0 (0.00%)	
	4 to 12	N (%)			0 (0.00%)	0 (0.00%)	
	13 to 18	N (%)			0 (0.00%)	0 (0.00%)	
	19 to 40	N (%)	-	-	0 (0.00%)	24 (47.06%)	-
	41 to 60	N (%)	-	-	<5	20 (39.22%)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	61 to 150	N (%)	-	-	<5	7 (13.73%)	-
Sex	Female	N (%)	-	-	<5	42 (82.35%)	-
	Male	N (%)	-	-	0 (0.00%)	9 (17.65%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	-	8 [4 - 15]	-
		Mean (SD)	-	-	-	11.24 (9.00)	-
		Range	-	-	-	1 to 34	-
Prior jak inhibitor use	Abrocitinib	N (%)	-	-	0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	-	-	0 (0.00%)	7 (13.73%)	-
	Filgotinib	N (%)	-	-	0 (0.00%)	0 (0.00%)	-
	Tofacitinib	N (%)	-	-	0 (0.00%)	<5	-
	Upadacitinib	N (%)	-	-	<5	0 (0.00%)	-
Indications	Alopecia areata	N (%)	-	-	<5	51 (100.00%)	-
	Atopic dermatitis	N (%)	-	-	0 (0.00%)	7 (13.73%)	-
	Axial spondylitis	N (%)	-	-	0 (0.00%)	0 (0.00%)	-
	Inflammatory bowel disease	N (%)	-	-	0 (0.00%)	19 (37.25%)	-
	Juvenile arthritis	N (%)	-	-	0 (0.00%)	<5	-
	Juvenile idiopathic arthritis	N (%)	-	-	0 (0.00%)	<5	-
	Psoriatic arthritis	N (%)	-	-	<5	<5	-
	Rheumatoid arthritis	N (%)	-	-	<5	36 (70.59%)	-
Time from indication to treatment initiation (month)	Alopecia areata	Median [Q25 - Q75]	-	-	-	89 [56 - 132]	-
		Mean (SD)	-	-	-	90.87 (48.49)	-
		Range	-	-	-	1 to 176	-
Atopic dermatitis							
Number subjects	-	N	9	<5	9	278	-
Age	-	Median [Q25 - Q75]	37 [28 - 52]	<5	62.00 [54.00 - 68.00]	49 [34 - 61]	-
		Mean (SD)	38.67 (13.46)	<5	60.44 (8.93)	47.72 (16.92)	-
		Range	21 to 58	<5	44.00 to 69.00	18 to 82	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	
	4 to 12	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	
	13 to 18	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	5 (1.80%)	-
	19 to 40	N (%)	6 (66.67%)	0 (0.00%)	0 (0.00%)	97 (34.89%)	-
	41 to 60	N (%)	<5	<5	<5	102 (36.69%)	-
	61 to 150	N (%)	-	<5	6 (66.67%)	74 (26.62%)	-
Sex	Female	N (%)	7 (77.78%)	<5	6 (66.67%)	190 (68.35%)	-
	Male	N (%)	<5	0 (0.00%)	<5	88 (31.65%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	5.75 [0.99 - 19.88]	7 [3 - 14]	-
		Mean (SD)	-	-	9.86 (9.86)	9.79 (8.44)	-
		Range	-	-	0.99 to 23.72	0 to 34	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	35 (12.59%)	-
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	-
	Tofacitinib	N (%)	<5	0 (0.00%)	<5	32 (11.51%)	-
	Upadacitinib	N (%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)	-
Indications	Alopecia areata	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	7 (2.52%)	-
	Atopic dermatitis	N (%)	9 (100.00%)	<5	9 (100.00%)	278 (100.00%)	-
	Axial spondylitis	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	18 (6.47%)	-
	Inflammatory bowel disease	N (%)	7 (77.78%)	0 (0.00%)	0 (0.00%)	104 (37.41%)	-
	Juvenile arthritis	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	23 (8.27%)	-
	Juvenile idiopathic arthritis	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	5 (1.80%)	-
	Psoriatic arthritis	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	38 (13.67%)	-
	Rheumatoid arthritis	N (%)	<5	<5	8 (88.89%)	190 (68.35%)	-
Time from indication to treatment initiation (month)	Atopic dermatitis	Median [Q25 - Q75]	64 [37 - 95]	-	55 [49 - 101]	52 [29 - 102]	-
		Mean (SD)	67.61 (43.27)	-	77.54 (46.52)	66.83 (50.10)	-
		Range	11 to 128	-	13 to 148	1 to 187	-
Axial spondylitis							

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Number subjects	-	N	-	12	15	71	-
Age	-	Median [Q25 - Q75]	-	62 [54 - 64]	51.00 [44.00 - 59.00]	54 [44 - 61]	-
		Mean (SD)	-	59.17 (9.97)	50.67 (10.75)	51.83 (13.71)	-
		Range	-	37 to 75	30.00 to 67.00	20 to 79	-
Age group	0 to 3	N (%)		0 (0.00%)	0 (0.00%)	0 (0.00%)	
	4 to 12	N (%)		0 (0.00%)	0 (0.00%)	0 (0.00%)	
	13 to 18	N (%)		0 (0.00%)	0 (0.00%)	0 (0.00%)	
	19 to 40	N (%)	-	<5	<5	14 (19.72%)	-
	41 to 60	N (%)	-	<5	10 (66.67%)	38 (53.52%)	-
	61 to 150	N (%)	-	7 (58.33%)	<5	19 (26.76%)	-
Sex	Female	N (%)	-	10 (83.33%)	8 (53.33%)	48 (67.61%)	-
	Male	N (%)	-	<5	7 (46.67%)	23 (32.39%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	4 [2 - 11]	6.24 [1.97 - 10.91]	8 [3 - 13]	-
		Mean (SD)	-	8.87 (10.18)	9.36 (10.61)	9.49 (8.15)	-
		Range	-	0 to 32	0.99 to 33.35	0 to 32	-
Prior jak inhibitor use	Abrocitinib	N (%)	-	0 (0.00%)	0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	-	0 (0.00%)	0 (0.00%)	7 (9.86%)	-
	Filgotinib	N (%)	-	0 (0.00%)	0 (0.00%)	0 (0.00%)	-
	Tofacitinib	N (%)	-	0 (0.00%)	<5	10 (14.08%)	-
	Upadacitinib	N (%)	-	0 (0.00%)	<5	<5	-
Indications	Alopecia areata	N (%)	-	0 (0.00%)	0 (0.00%)	0 (0.00%)	-
	Atopic dermatitis	N (%)	-	0 (0.00%)	0 (0.00%)	18 (25.35%)	-
	Axial spondylitis	N (%)	-	12 (100.00%)	15 (100.00%)	71 (100.00%)	-
	Inflammatory bowel disease	N (%)	-	<5	<5	19 (26.76%)	-
	Juvenile arthritis	N (%)	-	0 (0.00%)	0 (0.00%)	10 (14.08%)	-
	Juvenile idiopathic arthritis	N (%)	-	0 (0.00%)	0 (0.00%)	<5	-
	Psoriatic arthritis	N (%)	-	0 (0.00%)	<5	30 (42.25%)	-
	Rheumatoid arthritis	N (%)	-	12 (100.00%)	12 (80.00%)	67 (94.37%)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Time from indication to treatment initiation (month)	Axial spondylitis	Median [Q25 - Q75]	-	49 [21 - 63]	27 [12 - 68]	95 [29 - 151]	-
		Mean (SD)	-	47.15 (35.48)	52.24 (54.24)	93.01 (59.40)	-
		Range	-	4 to 136	8 to 152	3 to 187	-
Inflammatory bowel disease							
Number subjects	-	N	74	14	114	499	-
Age	-	Median [Q25 - Q75]	40 [30 - 47]	53 [41 - 59]	46.50 [36.25 - 58.00]	36 [28 - 48]	-
		Mean (SD)	40.66 (13.03)	47.57 (16.47)	47.03 (13.90)	38.76 (14.01)	-
		Range	19 to 73	21 to 68	18.00 to 73.00	17 to 77	-
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	
	4 to 12	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	
	13 to 18	N (%)	0 (0.00%)	0 (0.00%)	<5	8 (1.60%)	-
	19 to 40	N (%)	38 (51.35%)	<5	40 (35.09%)	284 (56.91%)	-
	41 to 60	N (%)	29 (39.19%)	9 (64.29%)	50 (43.86%)	162 (32.46%)	-
	61 to 150	N (%)	7 (9.46%)	<5	23 (20.18%)	45 (9.02%)	-
Sex	Female	N (%)	37 (50.00%)	<5	61 (53.51%)	220 (44.09%)	-
	Male	N (%)	37 (50.00%)	10 (71.43%)	53 (46.49%)	279 (55.91%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	1 [1 - 3]	7.75 [3.42 - 14.29]	6 [3 - 10]	-
		Mean (SD)	-	1.81 (1.15)	10.32 (8.41)	7.16 (5.22)	-
		Range	-	0 to 4	0.99 to 30.72	0 to 29	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	0 (0.00%)	0 (0.00%)	<5	9 (1.80%)	-
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	-
	Tofacitinib	N (%)	6 (8.11%)	<5	12 (10.53%)	22 (4.41%)	-
	Upadacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5	-
Indications	Alopecia areata	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	19 (3.81%)	-
	Atopic dermatitis	N (%)	7 (9.46%)	0 (0.00%)	0 (0.00%)	104 (20.84%)	-
	Axial spondylitis	N (%)	0 (0.00%)	<5	<5	19 (3.81%)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Inflammatory bowel disease	N (%)	74 (100.00%)	14 (100.00%)	114 (100.00%)	499 (100.00%)	-
	Juvenile arthritis	N (%)	<5	0 (0.00%)	0 (0.00%)	11 (2.20%)	-
	Juvenile idiopathic arthritis	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	-
	Psoriatic arthritis	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	31 (6.21%)	-
	Rheumatoid arthritis	N (%)	<5	<5	8 (7.02%)	91 (18.24%)	-
Time from indication to treatment initiation (month)	Inflammatory bowel disease	Median [Q25 - Q75]	92 [30 - 134]	24 [15 - 37]	43 [25 - 83]	68 [28 - 130]	-
		Mean (SD)	82.23 (50.60)	31.34 (24.21)	57.30 (43.60)	79.80 (57.56)	-
		Range	4 to 152	0 to 86	0 to 210	0 to 188	-
Juvenile arthritis							
Number subjects	-	N	14		7	133	-
Age	-	Median [Q25 - Q75]	44 [40 - 62]		29.00 [25.50 - 37.50]	37 [28 - 52]	-
		Mean (SD)	48.29 (16.67)		31.86 (8.30)	41.61 (17.11)	-
		Range	19 to 78		23.00 to 45.00	18 to 85	-
Age group	0 to 3	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	
	4 to 12	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	
	13 to 18	N (%)	0 (0.00%)		0 (0.00%)	<5	-
	19 to 40	N (%)	<5		6 (85.71%)	72 (54.14%)	-
	41 to 60	N (%)	6 (42.86%)		<5	37 (27.82%)	-
	61 to 150	N (%)	<5		0 (0.00%)	22 (16.54%)	-
Sex	Female	N (%)	12 (85.71%)		6 (85.71%)	112 (84.21%)	-
	Male	N (%)	<5		<5	21 (15.79%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-		7.89 [4.34 - 12.62]	8 [3 - 18]	-
		Mean (SD)	-		9.00 (6.90)	11.10 (9.23)	-
		Range	-		0.99 to 20.34	0 to 32	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	5 (35.71%)		0 (0.00%)	24 (18.05%)	-
	Filgotinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
	Tofacitinib	N (%)	6 (42.86%)		0 (0.00%)	22 (16.54%)	-
	Upadacitinib	N (%)	<5		<5	<5	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Indications	Alopecia areata	N (%)	0 (0.00%)		0 (0.00%)	<5	-
	Atopic dermatitis	N (%)	0 (0.00%)		0 (0.00%)	23 (17.29%)	-
	Axial spondylitis	N (%)	0 (0.00%)		0 (0.00%)	10 (7.52%)	-
	Inflammatory bowel disease	N (%)	<5		0 (0.00%)	11 (8.27%)	-
	Juvenile arthritis	N (%)	14 (100.00%)		7 (100.00%)	133 (100.00%)	-
	Juvenile idiopathic arthritis	N (%)	9 (64.29%)		<5	35 (26.32%)	-
	Psoriatic arthritis	N (%)	0 (0.00%)		0 (0.00%)	20 (15.04%)	-
	Rheumatoid arthritis	N (%)	12 (85.71%)		6 (85.71%)	133 (100.00%)	-
Time from indication to treatment initiation (month)	Juvenile arthritis	Median [Q25 - Q75]	136 [107 - 141]		66 [40 - 173]	141 [48 - 164]	-
		Mean (SD)	111.67 (50.76)		105.69 (86.97)	111.57 (59.73)	-
		Range	7 to 150		12 to 236	1 to 188	-
Juvenile idiopathic arthritis							
Number subjects	-	N	9		<5	35	-
Age	-	Median [Q25 - Q75]	44 [37 - 45]		<5	27 [22 - 34]	-
		Mean (SD)	43.33 (17.71)		<5	30.31 (10.26)	-
		Range	19 to 78		<5	18 to 51	-
Age group	0 to 3	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	
	4 to 12	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	
	13 to 18	N (%)	0 (0.00%)		0 (0.00%)	<5	-
	19 to 40	N (%)	<5		<5	26 (74.29%)	-
	41 to 60	N (%)	<5		0 (0.00%)	7 (20.00%)	-
	61 to 150	N (%)	<5		0 (0.00%)	0 (0.00%)	-
Sex	Female	N (%)	7 (77.78%)		<5	32 (91.43%)	-
	Male	N (%)	<5		0 (0.00%)	<5	-
Treatment duration (month)	-	Median [Q25 - Q75]	-		-	7 [3 - 16]	-
		Mean (SD)	-		-	10.28 (8.77)	-
		Range	-		-	1 to 32	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	<5		0 (0.00%)	7 (20.00%)	-
	Filgotinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
	Tofacitinib	N (%)	<5		0 (0.00%)	6 (17.14%)	-
	Upadacitinib	N (%)	<5		<5	<5	-
Indications	Alopecia areata	N (%)	0 (0.00%)		0 (0.00%)	<5	-
	Atopic dermatitis	N (%)	0 (0.00%)		0 (0.00%)	5 (14.29%)	-
	Axial spondylitis	N (%)	0 (0.00%)		0 (0.00%)	<5	-
	Inflammatory bowel disease	N (%)	<5		0 (0.00%)	<5	-
	Juvenile arthritis	N (%)	9 (100.00%)		<5	35 (100.00%)	-
	Juvenile idiopathic arthritis	N (%)	9 (100.00%)		<5	35 (100.00%)	-
	Psoriatic arthritis	N (%)	0 (0.00%)		0 (0.00%)	<5	-
	Rheumatoid arthritis	N (%)	9 (100.00%)		<5	35 (100.00%)	-
Time from indication to treatment initiation (month)	Juvenile idiopathic arthritis	Median [Q25 - Q75]	138 [124 - 147]		-	135 [44 - 165]	-
		Mean (SD)	121.10 (43.10)		-	110.42 (60.48)	-
		Range	15 to 149		-	7 to 185	-
Psoriatic arthritis							
Number subjects	-	N	5	-	35	168	-
Age	-	Median [Q25 - Q75]	56 [52 - 74]	-	58.00 [52.00 - 63.00]	58 [49 - 67]	-
		Mean (SD)	54.60 (23.32)	-	57.03 (9.90)	57.30 (13.17)	-
		Range	17 to 74	-	35.00 to 78.00	22 to 84	-
Age group	0 to 3	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	
	4 to 12	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	
	13 to 18	N (%)	<5	-	0 (0.00%)	0 (0.00%)	-
	19 to 40	N (%)	0 (0.00%)	-	<5	20 (11.90%)	-
	41 to 60	N (%)	<5	-	19 (54.29%)	75 (44.64%)	-
	61 to 150	N (%)	<5	-	14 (40.00%)	73 (43.45%)	-
Sex	Female	N (%)	<5	-	26 (74.29%)	126 (75.00%)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Male	N (%)	<5	-	9 (25.71%)	42 (25.00%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	6.67 [3.25 - 14.39]	10 [3 - 18]	-
		Mean (SD)	-	-	10.09 (9.89)	11.86 (9.59)	-
		Range	-	-	0.99 to 41.76	0 to 34	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	-	0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	0 (0.00%)	-	<5	29 (17.26%)	-
	Filgotinib	N (%)	0 (0.00%)	-	0 (0.00%)	0 (0.00%)	-
	Tofacitinib	N (%)	0 (0.00%)	-	<5	34 (20.24%)	-
	Upadacitinib	N (%)	<5	-	9 (25.71%)	8 (4.76%)	-
Indications	Alopecia areata	N (%)	0 (0.00%)	-	<5	<5	-
	Atopic dermatitis	N (%)	0 (0.00%)	-	0 (0.00%)	38 (22.62%)	-
	Axial spondylitis	N (%)	0 (0.00%)	-	<5	30 (17.86%)	-
	Inflammatory bowel disease	N (%)	0 (0.00%)	-	0 (0.00%)	31 (18.45%)	-
	Juvenile arthritis	N (%)	0 (0.00%)	-	0 (0.00%)	20 (11.90%)	-
	Juvenile idiopathic arthritis	N (%)	0 (0.00%)	-	0 (0.00%)	<5	-
	Psoriatic arthritis	N (%)	5 (100.00%)	-	35 (100.00%)	168 (100.00%)	-
	Rheumatoid arthritis	N (%)	<5	-	31 (88.57%)	165 (98.21%)	-
Time from indication to treatment initiation (month)	Psoriatic arthritis	Median [Q25 - Q75]	15 [8 - 18]	-	54 [83 – 30]	75 [38 - 139]	-
		Mean (SD)	22.31 (22.54)	-	62.36 (50.99)	86.64 (56.34)	-
		Range	8 to 62	-	0 to 228	0 to 187	-
Rheumatoid arthritis							
Number subjects	-	N	80	23	616	1,150	-
Age	-	Median [Q25 - Q75]	56 [47 - 65]	59 [50 - 62]	61.50 [53.75 - 69.00]	56 [45 - 67]	-
		Mean (SD)	55.33 (13.62)	56.04 (9.64)	61.06 (12.39)	55.02 (15.35)	-
		Range	17 to 78	37 to 75	22.00 to 88.00	18 to 91	-
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	
	4 to 12	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	13 to 18	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	-
	19 to 40	N (%)	7 (8.75%)	<5	38 (6.17%)	215 (18.70%)	-
	41 to 60	N (%)	43 (53.75%)	12 (52.17%)	245 (39.77%)	484 (42.09%)	-
	61 to 150	N (%)	29 (36.25%)	8 (34.78%)	333 (54.06%)	449 (39.04%)	-
Sex	Female	N (%)	62 (77.50%)	19 (82.61%)	491 (79.71%)	899 (78.17%)	-
	Male	N (%)	18 (22.50%)	<5	125 (20.29%)	251 (21.83%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	4 [1 - 9]	9.17 [3.71 - 20.47]	9 [4 - 19]	-
		Mean (SD)	-	7.52 (8.51)	12.78 (10.74)	11.79 (9.53)	-
		Range	-	0 to 32	0.99 to 44.29	0 to 34	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	24 (30.00%)	<5	25 (4.06%)	183 (15.91%)	-
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	-
	Tofacitinib	N (%)	19 (23.75%)	<5	87 (14.12%)	181 (15.74%)	-
	Upadacitinib	N (%)	16 (20.00%)	0 (0.00%)	97 (15.75%)	16 (1.39%)	-
Indications	Alopecia areata	N (%)	0 (0.00%)	0 (0.00%)	<5	36 (3.13%)	-
	Atopic dermatitis	N (%)	<5	<5	8 (1.30%)	190 (16.52%)	-
	Axial spondylitis	N (%)	0 (0.00%)	12 (52.17%)	12 (1.95%)	67 (5.83%)	-
	Inflammatory bowel disease	N (%)	<5	<5	8 (1.30%)	91 (7.91%)	-
	Juvenile arthritis	N (%)	12 (15.00%)	0 (0.00%)	6 (0.97%)	133 (11.57%)	-
	Juvenile idiopathic arthritis	N (%)	9 (11.25%)	0 (0.00%)	<5	35 (3.04%)	-
	Psoriatic arthritis	N (%)	<5	0 (0.00%)	31 (5.03%)	165 (14.35%)	-
	Rheumatoid arthritis	N (%)	80 (100.00%)	23 (100.00%)	616 (100.00%)	1,150 (100.00%)	-
Time from indication to treatment initiation (month)	Rheumatoid arthritis	Median [Q25 - Q75]	118 [67 - 134]	45 [21 - 77]	67 [112 - 270]	129 [53 - 164]	-
		Mean (SD)	100.14 (46.52)	53.16 (38.87)	81.58 (67.12)	110.82 (58.78)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Range	1 to 156	4 to 136	0 to 346	0 to 191	-

Tofacitinib

The median age of tofacitinib initiators ranged from 48 (41-53) in VID to 58 (50-67) in IQVIA-DA Germany, with majority from the age group of 41 to 60. Majority of these individuals were female (62.1% in FinOMOP-HILMO to 72.9% in IQVIA-DA Germany), while the most common indicated conditions was rheumatoid arthritis (42.9% in IPCI to 87.6% in NLHR). Median days of treatment duration ranged from 4 (1-11) months in IPCI to 7 (3-21) months in IQVIA-DA Germany. There were also 15.9% (FinOMOP-HILMO) - 26.3% (VID) of individuals with indicated conditions of psoriatic arthritis and 8.1% (VID) – 32.0% (FinOMOP-HILMO) of them with inflammatory bowel disease.

Among those with rheumatoid arthritis, 9.5% (IQVIA-DA Germany)-20.3% (NLHR) of them had psoriatic arthritis and 2.8% (FinOMOP-HILMO)-68.9% (IPCI) had axial spondylitis.

Table 14. Patient characterisation of tofacitinib initiators.

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
tofacitinib							
Number subjects	-	N	2,129	210	1,583	1,472	160
Age	-	Median [Q25 - Q75]	50 [34 - 61]	56 [45 - 66]	58 [50 - 67]	54 [40 - 64]	48 [41 - 53]
		Mean (SD)	47.52 (17.56)	54.41 (16.70)	57.58 (14.30)	51.87 (16.03)	46.33 (8.74)
		Range	2 to 85	12 to 90	14 to 92	2 to 89	15 to 59
Age group	0 to 3	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	4 to 12	N (%)	52 (2.44%)	<5	0 (0.00%)	<5	0 (0.00%)
	13 to 18	N (%)	70 (3.29%)	<5	<5	21 (1.43%)	<5
	19 to 40	N (%)	601 (28.23%)	40 (19.05%)	198 (12.51%)	348 (23.64%)	39 (24.38%)
	41 to 60	N (%)	846 (39.74%)	88 (41.90%)	713 (45.04%)	612 (41.58%)	120 (75.00%)
	61 to 150	N (%)	557 (26.16%)	79 (37.62%)	670 (42.32%)	487 (33.08%)	0
Sex	Female	N (%)	1,322 (62.09%)	136 (64.76%)	1,154 (72.90%)	1,028 (69.84%)	160 (100.00%)
	Male	N (%)	807 (37.91%)	74 (35.24%)	429 (27.10%)	444 (30.16%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	4 [1 - 11]	7 [3 - 21]	7 [3 - 18]	-

			CDM name				
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Mean (SD)	-	9.72 (13.80)	14.85 (17.25)	14.62 (17.22)	-
		Range	-	0 to 79	1 to 82	0 to 71	-
Indications	Alopecia areata	N (%)	6 (0.28%)	<5	27 (1.71%)	44 (2.99%)	12 (7.50%)
	Atopic dermatitis	N (%)	119 (5.59%)	10 (4.76%)	10 (0.63%)	207 (14.06%)	<5
	Axial spondylitis	N (%)	67 (3.15%)	64 (30.48%)	53 (3.35%)	153 (10.39%)	8 (5.00%)
	Inflammatory bowel disease	N (%)	681 (31.99%)	29 (13.81%)	231 (14.59%)	235 (15.96%)	13 (8.12%)
	Juvenile arthritis	N (%)	242 (11.37%)	0 (0.00%)	19 (1.20%)	157 (10.67%)	<5
	Juvenile idiopathic arthritis	N (%)	138 (6.48%)	0 (0.00%)	<5	36 (2.45%)	0 (0.00%)
	Psoriatic arthritis	N (%)	339 (15.92%)	<5	268 (16.93%)	287 (19.50%)	42 (26.25%)
	Rheumatoid arthritis	N (%)	1,202 (56.46%)	90 (42.86%)	1,153 (72.84%)	1,290 (87.64%)	103 (64.38%)
Alopecia areata							
Number subjects	-	N	6	<5	27	44	12
Age	-	Median [Q25 - Q75]	42 [21 - 57]	<5	54.00 [47.50 - 62.50]	48 [40 - 58]	46 [39 - 55]
		Mean (SD)	39.83 (21.85)	<5	54.00 (13.76)	49.45 (14.01)	44.92 (12.06)
		Range	14 to 65	<5	19.00 to 79.00	21 to 80	15 to 57
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5
	19 to 40	N (%)	<5	<5	5 (18.52%)	12 (27.27%)	<5
	41 to 60	N (%)	<5	0 (0.00%)	13 (48.15%)	22 (50.00%)	8 (66.67%)
	61 to 150	N (%)	<5	<5	9 (33.33%)	10 (22.73%)	-
Sex	Female	N (%)	5 (83.33%)	<5	26 (96.30%)	36 (81.82%)	12 (100.00%)
	Male	N (%)	<5	<5	<5	8 (18.18%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	5.13 [1.38 - 17.61]	11 [4 - 27]	-
		Mean (SD)	-	-	12.91 (17.87)	16.72 (18.37)	-
		Range	-	-	0.92 to 73.30	1 to 65	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

			CDM name				
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Upadacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	6 (100.00%)	<5	27 (100.00%)	44 (100.00%)	12 (100.00%)
	Atopic dermatitis	N (%)	<5	<5	<5	9 (20.45%)	0 (0.00%)
	Axial spondylitis	N (%)	<5	<5	<5	6 (13.64%)	<5
	Inflammatory bowel disease	N (%)	0 (0.00%)	0 (0.00%)	<5	9 (20.45%)	0 (0.00%)
	Juvenile arthritis	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Psoriatic arthritis	N (%)	<5	0 (0.00%)	5 (18.52%)	10 (22.73%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	5 (83.33%)	<5	16 (59.26%)	35 (79.55%)	9 (75.00%)
Time from indication to treatment initiation (month)	Alopecia areata	Median [Q25 - Q75]	59 [13 - 94]	-	63 [24 – 98]	55 [25 - 101]	16 [8 - 22]
		Mean (SD)	57.92 (49.77)	-	66.23 (46.49)	66.86 (47.18)	15.34 (10.78)
		Range	4 to 122	-	0 to 169	7 to 176	0 to 33
Atopic dermatitis							
Number subjects	-	N	119	10	10	207	<5
Age	-	Median [Q25 - Q75]	41 [24 - 56]	64 [43 - 75]	48.00 [44.25 - 53.25]	49 [34 - 60]	<5
		Mean (SD)	39.52 (18.91)	57.70 (20.62)	47.90 (16.56)	47.19 (16.98)	<5
		Range	2 to 74	25 to 82	19.00 to 80.00	2 to 84	<5
Age group	0 to 3	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	4 to 12	N (%)	8 (6.72%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	6 (5.04%)	0 (0.00%)	0 (0.00%)	6 (2.90%)	0 (0.00%)
	19 to 40	N (%)	43 (36.13%)	<5	<5	69 (33.33%)	<5
	41 to 60	N (%)	41 (34.45%)	<5	6 (60.00%)	82 (39.61%)	<5
	61 to 150	N (%)	19 (15.97%)	6 (60.00%)	<5	49 (23.67%)	0 (0.00%)
Sex	Female	N (%)	88 (73.95%)	7 (70.00%)	8 (80.00%)	142 (68.60%)	<5
	Male	N (%)	31 (26.05%)	<5	<5	65 (31.40%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	6 [2 - 13]	4.24 [2.99 - 21.75]	7 [3 - 16]	-
		Mean (SD)	-	13.44 (23.46)	12.25 (14.36)	13.11 (15.18)	-

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Range	-	1 to 79	0.92 to 36.44	0 to 71	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	<5	0 (0.00%)	0 (0.00%)	5 (2.42%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Upadacitinib	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
Indications	Alopecia areata	N (%)	<5	<5	<5	9 (4.35%)	0 (0.00%)
	Atopic dermatitis	N (%)	119 (100.00%)	10 (100.00%)	10 (100.00%)	207 (100.00%)	<5
	Axial spondylitis	N (%)	7 (5.88%)	<5	0 (0.00%)	25 (12.08%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	48 (40.34%)	<5	<5	49 (23.67%)	0 (0.00%)
	Juvenile arthritis	N (%)	26 (21.85%)	0 (0.00%)	<5	25 (12.08%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	15 (12.61%)	0 (0.00%)	<5	5 (2.42%)	0 (0.00%)
	Psoriatic arthritis	N (%)	13 (10.92%)	0 (0.00%)	<5	68 (32.85%)	<5
	Rheumatoid arthritis	N (%)	60 (50.42%)	<5	5 (50.00%)	168 (81.16%)	<5
Time from indication to treatment initiation (month)	Atopic dermatitis	Median [Q25 - Q75]	68 [24 - 94]	20 [11 - 38]	127 [69 - 149]	44 [17 - 84]	-
		Mean (SD)	62.69 (39.59)	32.43 (33.25)	115.06 (49.68)	54.83 (46.92)	-
		Range	1 to 148	4 to 103	47 to 196	0 to 186	-
Axial spondylitis							
Number subjects	-	N	67	64	53	153	8
Age	-	Median [Q25 - Q75]	42 [36 - 54]	54 [48 - 68]	54.00 [42.00 - 62.00]	48 [36 - 56]	48 [45 - 53]
		Mean (SD)	44.36 (14.45)	54.89 (16.98)	52.49 (13.56)	46.82 (13.39)	48.88 (6.40)
		Range	17 to 80	12 to 90	30.00 to 90.00	17 to 80	39 to 59
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	<5	<5	0 (0.00%)	<5	0 (0.00%)
	19 to 40	N (%)	25 (37.31%)	11 (17.19%)	10 (18.87%)	50 (32.68%)	<5
	41 to 60	N (%)	29 (43.28%)	27 (42.19%)	29 (54.72%)	77 (50.33%)	7 (87.50%)
	61 to 150	N (%)	11 (16.42%)	24 (37.50%)	14 (26.42%)	25 (16.34%)	0 (0.00%)

			CDM name				
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Sex	Female	N (%)	37 (55.22%)	41 (64.06%)	33 (62.26%)	84 (54.90%)	8 (100.00%)
	Male	N (%)	30 (44.78%)	23 (35.94%)	20 (37.74%)	69 (45.10%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	3 [1 - 6]	5.98 [2.99 - 11.96]	5 [3 - 9]	-
		Mean (SD)	-	7.23 (12.62)	11.89 (16.43)	7.75 (10.02)	-
		Range	-	0 to 57	0.92 to 82.43	0 to 61	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	<5	<5	0 (0.00%)	5 (3.27%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	<5	0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Upadacitinib	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
Indications	Alopecia areata	N (%)	<5	<5	<5	6 (3.92%)	<5
	Atopic dermatitis	N (%)	7 (10.45%)	<5	0 (0.00%)	25 (16.34%)	0 (0.00%)
	Axial spondylitis	N (%)	67 (100.00%)	64 (100.00%)	53 (100.00%)	153 (100.00%)	8 (100.00%)
	Inflammatory bowel disease	N (%)	17 (25.37%)	6 (9.38%)	<5	29 (18.95%)	<5
	Juvenile arthritis	N (%)	9 (13.43%)	0 (0.00%)	<5	21 (13.73%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
	Psoriatic arthritis	N (%)	13 (19.40%)	<5	23 (43.40%)	32 (20.92%)	5 (62.50%)
	Rheumatoid arthritis	N (%)	33 (49.25%)	62 (96.88%)	32 (60.38%)	146 (95.42%)	<5
Time from indication to treatment initiation (month)	Axial spondylitis	Median [Q25 - Q75]	85 [52 - 108]	51 [22 - 75]	46 [30 - 90]	84 [33 - 130]	26 [14 - 35]
		Mean (SD)	82.10 (38.18)	53.26 (36.80)	62.95 (45.73)	87.39 (57.40)	24.11 (12.12)
		Range	5 to 149	0 to 163	6 to 173	0 to 190	7 to 39
Inflammatory bowel disease							
Number subjects	-	N	681	29	231	235	13
Age	-	Median [Q25 - Q75]	37 [27 - 50]	39 [29 - 51]	44.00 [33.00 - 55.00]	41 [28 - 55]	43 [32 - 48]
		Mean (SD)	38.91 (14.53)	41.41 (15.52)	44.47 (14.27)	41.63 (15.61)	39.54 (10.56)
		Range	9 to 85	19 to 80	20.00 to 84.00	14 to 79	20 to 53

			CDM name				
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	22 (3.23%)	0 (0.00%)	0 (0.00%)	11 (4.68%)	0 (0.00%)
	19 to 40	N (%)	379 (55.65%)	15 (51.72%)	102 (44.16%)	102 (43.40%)	6 (46.15%)
	41 to 60	N (%)	219 (32.16%)	11 (37.93%)	103 (44.59%)	90 (38.30%)	7 (53.85%)
	61 to 150	N (%)	59 (8.66%)	<5	26 (11.26%)	32 (13.62%)	0 (0.00%)
Sex	Female	N (%)	254 (37.30%)	14 (48.28%)	99 (42.86%)	115 (48.94%)	13 (100.00%)
	Male	N (%)	427 (62.70%)	15 (51.72%)	132 (57.14%)	120 (51.06%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	2 [1 - 5]	8.31 [2.99 - 23.00]	8 [4 - 15]	-
		Mean (SD)	-	5.49 (9.23)	15.28 (16.03)	12.29 (14.00)	-
		Range	-	0 to 36	0.92 to 69.13	0 to 71	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	<5	6 (2.55%)	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Upadacitinib	N (%)	<5	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
Indications	Alopecia areata	N (%)	0 (0.00%)	0 (0.00%)	<5	9 (3.83%)	0 (0.00%)
	Atopic dermatitis	N (%)	48 (7.05%)	<5	<5	49 (20.85%)	0 (0.00%)
	Axial spondylitis	N (%)	17 (2.50%)	6 (20.69%)	<5	29 (12.34%)	<5
	Inflammatory bowel disease	N (%)	681 (100.00%)	29 (100.00%)	231 (100.00%)	235 (100.00%)	13 (100.00%)
	Juvenile arthritis	N (%)	25 (3.67%)	0 (0.00%)	0 (0.00%)	13 (5.53%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	14 (2.06%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Psoriatic arthritis	N (%)	19 (2.79%)	0 (0.00%)	<5	43 (18.30%)	<5
	Rheumatoid arthritis	N (%)	55 (8.08%)	7 (24.14%)	18 (7.79%)	95 (40.43%)	5 (38.46%)
Time from indication to treatment initiation (month)	Inflammatory bowel disease	Median [Q25 - Q75]	53 [22 - 102]	56 [17 - 76]	48 [25 - 89]	64 [32 - 114]	18 [10 - 24]
		Mean (SD)	61.96 (42.71)	54.28 (37.52)	64.39 (53.06)	75.63 (52.24)	17.12 (9.69)
		Range	0 to 153	2 to 119	0 to 246	1 to 189	1 to 35
Juvenile arthritis							
Number subjects	-	N	242		19	157	<5

			CDM name				
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Age	-	Median [Q25 - Q75]	20 [13 - 35]		34.00 [26.50 - 43.50]	39 [24 - 54]	<5
		Mean (SD)	25.09 (15.93)		37.00 (15.52)	39.53 (17.94)	<5
		Range	2 to 76		14.00 to 69.00	2 to 84	<5
Age group	0 to 3	N (%)	<5		0 (0.00%)	<5	0 (0.00%)
	4 to 12	N (%)	51 (21.07%)		0 (0.00%)	<5	0 (0.00%)
	13 to 18	N (%)	51 (21.07%)		<5	9 (5.73%)	0 (0.00%)
	19 to 40	N (%)	91 (37.60%)		11 (57.89%)	75 (47.77%)	<5
	41 to 60	N (%)	39 (16.12%)		5 (26.32%)	47 (29.94%)	<5
	61 to 150	N (%)	7 (2.89%)		<5	23 (14.65%)	0 (0.00%)
Sex	Female	N (%)	188 (77.69%)		14 (73.68%)	124 (78.98%)	<5
	Male	N (%)	54 (22.31%)		5 (26.32%)	33 (21.02%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-		2.99 [1.91 - 7.10]	6 [3 - 12]	-
		Mean (SD)	-		8.90 (15.87)	11.24 (14.42)	-
		Range	-		0.92 to 64.85	0 to 65	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	5 (2.07%)		0 (0.00%)	8 (5.10%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)		0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Upadacitinib	N (%)	<5		<5	<5	0 (0.00%)
Indications	Alopecia areata	N (%)	<5		0 (0.00%)	<5	0 (0.00%)
	Atopic dermatitis	N (%)	26 (10.74%)		<5	25 (15.92%)	0 (0.00%)
	Axial spondylitis	N (%)	9 (3.72%)		<5	21 (13.38%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	25 (10.33%)		0 (0.00%)	13 (8.28%)	0 (0.00%)
	Juvenile arthritis	N (%)	242 (100.00%)		19 (100.00%)	157 (100.00%)	<5
	Juvenile idiopathic arthritis	N (%)	138 (57.02%)		<5	36 (22.93%)	0 (0.00%)
	Psoriatic arthritis	N (%)	31 (12.81%)		<5	31 (19.75%)	<5
	Rheumatoid arthritis	N (%)	139 (57.44%)		11 (57.89%)	151 (96.18%)	<5

			CDM name				
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Time from indication to treatment initiation (month)	Juvenile arthritis	Median [Q25 - Q75]	86 [46 - 121]		56 [27 - 96.72]	105 [51 - 127]	-
		Mean (SD)	82.17 (43.60)		74.74 (66.56)	93.96 (54.41)	-
		Range	3 to 154		2 to 269	0 to 189	-
Juvenile idiopathic arthritis							
Number subjects	-	N	138		<5	36	-
Age	-	Median [Q25 - Q75]	20 [14 - 32]		<5	24 [21 - 30]	-
		Mean (SD)	23.96 (13.48)		<5	26.61 (7.89)	-
		Range	2 to 60		<5	14 to 49	-
Age group	0 to 3	N (%)	<5		0 (0.00%)	0 (0.00%)	-
	4 to 12	N (%)	26 (18.84%)		0 (0.00%)	0 (0.00%)	-
	13 to 18	N (%)	31 (22.46%)		0 (0.00%)	<5	-
	19 to 40	N (%)	61 (44.20%)		<5	31 (86.11%)	-
	41 to 60	N (%)	19 (13.77%)		<5	<5	-
	61 to 150	N (%)	0 (0.00%)		<5	0 (0.00%)	-
Sex	Female	N (%)	114 (82.61%)		0 (0.00%)	30 (83.33%)	-
	Male	N (%)	24 (17.39%)		<5	6 (16.67%)	-
Treatment duration (month)	-	Median [Q25 - Q75]	-		-	7 [4 - 16]	-
		Mean (SD)	-		-	11.30 (13.04)	-
		Range	-		-	0 to 60	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
	Baricitinib	N (%)	<5		0 (0.00%)	<5	-
	Filgotinib	N (%)	0 (0.00%)		0 (0.00%)	<5	-
	Tofacitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	-
	Upadacitinib	N (%)	0 (0.00%)		0 (0.00%)	<5	-
Indications	Alopecia areata	N (%)	<5		0 (0.00%)	<5	-
	Atopic dermatitis	N (%)	15 (10.87%)		<5	5 (13.89%)	-
	Axial spondylitis	N (%)	<5		<5	<5	-

			CDM name				
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Inflammatory bowel disease	N (%)	14 (10.14%)		0 (0.00%)	<5	-
	Juvenile arthritis	N (%)	138 (100.00%)		<5	36 (100.00%)	-
	Juvenile idiopathic arthritis	N (%)	138 (100.00%)		<5	36 (100.00%)	-
	Psoriatic arthritis	N (%)	13 (9.42%)		<5	<5	-
	Rheumatoid arthritis	N (%)	83 (60.14%)		<5	36 (100.00%)	-
Time from indication to treatment initiation (month)	Juvenile idiopathic arthritis	Median [Q25 - Q75]	89 [44 - 121]		-	90 [53 - 125]	-
		Mean (SD)	82.40 (45.08)		-	94.92 (52.83)	-
		Range	0 to 153		-	7 to 189	-
Psoriatic arthritis							
Number subjects	-	N	339	<5	268	287	42
Age	-	Median [Q25 - Q75]	53 [44 - 62]	<5	56.00 [48.00 - 64.00]	53 [42 - 61]	48 [39 - 52]
		Mean (SD)	51.81 (14.79)	<5	55.49 (12.30)	51.34 (13.42)	46.26 (7.75)
		Range	9 to 85	<5	17.00 to 81.00	18 to 80	31 to 59
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	7 (2.06%)	0 (0.00%)	<5	<5	0 (0.00%)
	19 to 40	N (%)	59 (17.40%)	<5	27 (10.07%)	66 (23.00%)	12 (28.57%)
	41 to 60	N (%)	171 (50.44%)	<5	150 (55.97%)	143 (49.83%)	30 (71.43%)
	61 to 150	N (%)	99 (29.20%)	<5	90 (33.58%)	77 (26.83%)	-
Sex	Female	N (%)	214 (63.13%)	<5	198 (73.88%)	189 (65.85%)	42 (100.00%)
	Male	N (%)	125 (36.87%)	0 (0.00%)	70 (26.12%)	98 (34.15%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	6.05 [2.99 - 16.99]	5 [3 - 13]	-
		Mean (SD)	-	-	13.17 (16.16)	11.56 (15.05)	-
		Range	-	-	0.92 to 82.43	0 to 68	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Baricitinib	N (%)	7 (2.06%)	0 (0.00%)	0 (0.00%)	5 (1.74%)	0 (0.00%)
	Filgotinib	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Upadacitinib	N (%)	6 (1.77%)	0 (0.00%)	7 (2.61%)	9 (3.14%)	0 (0.00%)
Indications	Alopecia areata	N (%)	<5	0 (0.00%)	5 (1.87%)	10 (3.48%)	0 (0.00%)
	Atopic dermatitis	N (%)	13 (3.83%)	0 (0.00%)	<5	68 (23.69%)	<5
	Axial spondylitis	N (%)	13 (3.83%)	<5	23 (8.58%)	32 (11.15%)	5 (11.90%)
	Inflammatory bowel disease	N (%)	19 (5.60%)	0 (0.00%)	<5	43 (14.98%)	<5
	Juvenile arthritis	N (%)	31 (9.14%)	0 (0.00%)	<5	31 (10.80%)	<5
	Juvenile idiopathic arthritis	N (%)	13 (3.83%)	0 (0.00%)	<5	<5	0 (0.00%)
	Psoriatic arthritis	N (%)	339 (100.00%)	<5	268 (100.00%)	287 (100.00%)	42 (100.00%)
	Rheumatoid arthritis	N (%)	151 (44.54%)	<5	110 (41.04%)	262 (91.29%)	11 (26.19%)
Time from indication to treatment initiation (month)	Psoriatic arthritis	Median [Q25 - Q75]	80 [32 - 99]	-	42 [22 - 88]	89 [42 - 125]	21 [16 - 29]
		Mean (SD)	69.36 (39.52)	-	63.77 (59.20)	87.26 (52.70)	22.05 (10.91)
		Range	0 to 147	-	0 to 312	0 to 189	1 to 43
Rheumatoid arthritis							
Number subjects	-	N	1,202	90	1,153	1,290	103
Age	-	Median [Q25 - Q75]	57 [47 - 66]	56 [49 - 71]	61.00 [53.00 - 69.00]	55 [44 - 65]	49 [44 - 53]
		Mean (SD)	54.46 (15.15)	56.92 (16.32)	60.72 (12.59)	53.96 (15.12)	47.24 (7.48)
		Range	5 to 84	12 to 90	19.00 to 92.00	14 to 89	25 to 58
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	15 (1.25%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	17 (1.41%)	<5	0 (0.00%)	9 (0.70%)	0 (0.00%)
	19 to 40	N (%)	171 (14.23%)	13 (14.44%)	69 (5.98%)	253 (19.61%)	22 (21.36%)
	41 to 60	N (%)	534 (44.43%)	37 (41.11%)	507 (43.97%)	549 (42.56%)	81 (78.64%)
	61 to 150	N (%)	465 (38.69%)	38 (42.22%)	577 (50.04%)	479 (37.13%)	0 (0.00%)
Sex	Female	N (%)	932 (77.54%)	57 (63.33%)	908 (78.75%)	948 (73.49%)	103 (100.00%)
	Male	N (%)	270 (22.46%)	33 (36.67%)	245 (21.25%)	342 (26.51%)	0 (0.00%)

Variable name	Variable level	Estimate name	CDM name				
			FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Treatment duration (month)	-	Median [Q25 - Q75]	-	3 [1 - 8]	7.69 [2.99 - 22.87]	7 [3 - 19]	-
		Mean (SD)	-	7.52 (11.66)	15.54 (18.07)	14.88 (17.51)	-
		Range	-	0 to 57	0.92 to 82.43	0 to 70	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	50 (4.16%)	<5	19 (1.65%)	46 (3.57%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	<5	<5	28 (2.17%)	0 (0.00%)
	Tofacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Upadacitinib	N (%)	13 (1.08%)	0 (0.00%)	8 (0.69%)	11 (0.85%)	<5
Indications	Alopecia areata	N (%)	5 (0.42%)	<5	16 (1.39%)	35 (2.71%)	9 (8.74%)
	Atopic dermatitis	N (%)	60 (4.99%)	<5	5 (0.43%)	168 (13.02%)	<5
	Axial spondylitis	N (%)	33 (2.75%)	62 (68.89%)	32 (2.78%)	146 (11.32%)	<5
	Inflammatory bowel disease	N (%)	55 (4.58%)	7 (7.78%)	18 (1.56%)	95 (7.36%)	5 (4.85%)
	Juvenile arthritis	N (%)	139 (11.56%)	0 (0.00%)	11 (0.95%)	151 (11.71%)	<5
	Juvenile idiopathic arthritis	N (%)	83 (6.91%)	0 (0.00%)	<5	36 (2.79%)	0 (0.00%)
	Psoriatic arthritis	N (%)	151 (12.56%)	<5	110 (9.54%)	262 (20.31%)	11 (10.68%)
	Rheumatoid arthritis	N (%)	1,202 (100.00%)	90 (100.00%)	1,153 (100.00%)	1,290 (100.00%)	103 (100.00%)
Time from indication to treatment initiation (month)	Rheumatoid arthritis	Median [Q25 - Q75]	81 [45 - 94]	52 [28 - 82]	56 [30 -107]	105 [47 - 126]	17 [12 - 28]
		Mean (SD)	71.62 (34.20)	58.41 (38.74)	71.13 (52.57)	89.89 (48.20)	19.68 (11.27)
		Range	0 to 154	0 to 163	0 to 331	0 to 190	0 to 46

Upadacitinib

The median age of upadacitinib initiators ranged from 47 (35-58) in FinOMOP-HILMO to 57 (47-64) in IQVIA-DA Germany, and women were predominant. Median treatment duration ranged from 5 (2-11) months in IPCI to 9 (3-20) months in IQVIA-DA Germany. Rheumatoid arthritis remained the most common likely indication for upadacitinib initiators (22.1% in IPCI to 82.6% in VID), while a considerable proportion of individuals with inflammatory bowel disease (4.4% in VID to 33.6% in NLHR), axial spondylitis (4.4% in VID to 17.4% in IPCI), psoriatic arthritis (8.7% in VID to 44.3% in NLHR, 0 for IPCI) and atopic dermatitis (6.09% in VID to 29.23% in NLHR) was observed.

In those with rheumatoid arthritis, previous exposure to baricitinib (3.2% in IQVIA-DA Germany to 26.3% in IPCI), tofacitinib (14.5% in IQVIA-DA Germany to 36.8% in IPCI) and filgotinib (2.8% in IQVIA-DA Germany and 22.1% in NLHR) was observed prior to upadacitinib.

When considering upadacitinib initiators with inflammatory bowel disease, 7.7% in NLHR to 9.7% in FinOMOP-HILMO had a history of use of tofacitinib, and 1.6% in FinOMOP-HILMO to 12.0% in NLHR had previously used filgotinib.

Table 15. Patient characterisation of upadacitinib initiators.

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
upadacitinib							
Number subjects	-	N	1,296	86	2,534	544	115
Age	-	Median [Q25 - Q75]	47 [35 - 58]	48 [34 - 59]	57 [47 - 64]	49 [36 - 60]	49 [44 - 54]
		Mean (SD)	46.48 (15.20)	46.45 (16.83)	55.39 (14.14)	47.93 (16.08)	47.90 (7.97)
		Range	11 to 85	15 to 82	6 to 95	12 to 88	24 to 59
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
	13 to 18	N (%)	25 (1.93%)	<5	11 (0.43%)	12 (2.21%)	0 (0.00%)
	19 to 40	N (%)	439 (33.87%)	27 (31.40%)	382 (15.07%)	168 (30.88%)	16 (13.91%)
	41 to 60	N (%)	572 (44.14%)	37 (43.02%)	1,182 (46.65%)	227 (41.73%)	99 (86.09%)
	61 to 150	N (%)	257 (19.83%)	19 (22.09%)	957 (37.77%)	135 (24.82%)	0 (0.00%)
Sex	Female	N (%)	801 (61.81%)	54 (62.79%)	1,683 (66.42%)	344 (63.24%)	115 (100.00%)
	Male	N (%)	495 (38.19%)	32 (37.21%)	850 (33.54%)	200 (36.76%)	0 (0.00%)
	None	N (%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	5 [2 - 11]	9 [3 - 20]	5 [2 - 11]	-
		Mean (SD)	-	7.79 (8.05)	13.34 (12.19)	8.02 (7.98)	-
		Range	-	0 to 31	1 to 52	0 to 33	-
Indications	Alopecia areata	N (%)	9 (0.69%)	0 (0.00%)	42 (1.66%)	20 (3.68%)	6 (5.22%)
	Atopic dermatitis	N (%)	197 (15.20%)	25 (29.07%)	210 (8.29%)	159 (29.23%)	7 (6.09%)
	Axial spondylitis	N (%)	143 (11.03%)	15 (17.44%)	197 (7.77%)	93 (17.10%)	5 (4.35%)

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Inflammatory bowel disease	N (%)	373 (28.78%)	14 (16.28%)	281 (11.09%)	183 (33.64%)	5 (4.35%)
	Juvenile arthritis	N (%)	81 (6.25%)	0 (0.00%)	20 (0.79%)	42 (7.72%)	<5
	Juvenile idiopathic arthritis	N (%)	53 (4.09%)	0 (0.00%)	<5	9 (1.65%)	<5
	Psoriatic arthritis	N (%)	174 (13.43%)	0 (0.00%)	473 (18.67%)	241 (44.30%)	10 (8.70%)
	Rheumatoid arthritis	N (%)	708 (54.63%)	19 (22.09%)	1,556 (61.40%)	380 (69.85%)	95 (82.61%)
Alopecia areata							
Number subjects	-	N	9	-	42	20	6
Age	-	Median [Q25 - Q75]	36 [33 - 47]	-	59.50 [51.00 - 65.00]	54 [43 - 63]	48 [39 - 54]
		Mean (SD)	40.00 (13.94)	-	56.00 (14.46)	52.25 (16.39)	47.00 (9.74)
		Range	22 to 66	-	17.00 to 83.00	17 to 83	35 to 58
Age group	0 to 3	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	0 (0.00%)	-	<5	<5	0 (0.00%)
	19 to 40	N (%)	6 (66.67%)	-	6 (14.29%)	<5	<5
	41 to 60	N (%)	<5	-	18 (42.86%)	8 (40.00%)	<5
	61 to 150	N (%)	<5	-	17 (40.48%)	7 (35.00%)	0 (0.00%)
Sex	Female	N (%)	7 (77.78%)	-	38 (90.48%)	17 (85.00%)	6 (100.00%)
	Male	N (%)	<5	-	<5	<5	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	8.71 [3.02 - 13.63]	4 [3 - 9]	-
		Mean (SD)	-	-	11.50 (12.35)	7.69 (7.72)	-
		Range	-	-	0.99 to 50.83	1 to 29	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	-	0 (0.00%)	<5	0 (0.00%)
	Baricitinib	N (%)	<5	-	0 (0.00%)	<5	<5
	Filgotinib	N (%)	0 (0.00%)	-	0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	<5	-	6 (14.29%)	<5	<5
	Upadacitinib	N (%)	0 (0.00%)	-	0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	9 (100.00%)	-	42 (100.00%)	20 (100.00%)	6 (100.00%)

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Atopic dermatitis	N (%)	5 (55.56%)	-	11 (26.19%)	6 (30.00%)	0 (0.00%)
	Axial spondylitis	N (%)	0 (0.00%)	-	<5	5 (25.00%)	<5
	Inflammatory bowel disease	N (%)	<5	-	<5	5 (25.00%)	<5
	Juvenile arthritis	N (%)	0 (0.00%)	-	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	0 (0.00%)	-	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Psoriatic arthritis	N (%)	0 (0.00%)	-	6 (14.29%)	11 (55.00%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	<5	-	25 (59.52%)	15 (75.00%)	6 (100.00%)
Time from indication to treatment initiation (month)	Alopecia areata	Median [Q25 - Q75]	19 [14 - 26]	-	56 [25 - 123]	78 [39 - 111]	17 [15 - 30]
		Mean (SD)	37.03 (44.78)	-	73.82 (65.61)	72.02 (49.38)	20.67 (13.44)
		Range	1 to 134	-	7 to 321	2 to 159	3 to 39
Atopic dermatitis							
Number subjects	-	N	197	25	210	159	7
Age	-	Median [Q25 - Q75]	36 [25 - 48]	35 [28 - 43]	47.00 [32.00 - 58.75]	43 [27 - 57]	44 [33 - 44]
		Mean (SD)	37.36 (15.03)	38.32 (15.58)	45.63 (17.51)	42.35 (17.33)	39.71 (11.69)
		Range	11 to 75	18 to 82	11.00 to 88.00	12 to 84	24 to 56
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	<5	0 (0.00%)	<5	<5	0 (0.00%)
	13 to 18	N (%)	15 (7.61%)	<5	11 (5.24%)	10 (6.29%)	0 (0.00%)
	19 to 40	N (%)	100 (50.76%)	14 (56.00%)	75 (35.71%)	59 (37.11%)	<5
	41 to 60	N (%)	66 (33.50%)	7 (28.00%)	80 (38.10%)	67 (42.14%)	5 (71.43%)
	61 to 150	N (%)	13 (6.60%)	<5	43 (20.48%)	21 (13.21%)	0 (0.00%)
Sex	Female	N (%)	107 (54.31%)	13 (52.00%)	101 (48.10%)	88 (55.35%)	7 (100.00%)
	Male	N (%)	90 (45.69%)	12 (48.00%)	109 (51.90%)	71 (44.65%)	0 (0.00%)

			CDM name				
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Treatment duration (month)	-	Median [Q25 - Q75]	-	4 [1 - 16]	9.20 [4.07 - 16.76]	4 [2 - 10]	-
		Mean (SD)	-	8.80 (8.67)	11.20 (8.44)	7.46 (7.52)	-
		Range	-	0 to 26	0.99 to 43.83	0 to 30	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	21 (13.21%)	0 (0.00%)
	Baricitinib	N (%)	34 (17.26%)	5 (20.00%)	<5	30 (18.87%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	<5	<5	18 (11.32%)	0 (0.00%)
	Tofacitinib	N (%)	9 (4.57%)	<5	<5	15 (9.43%)	0 (0.00%)
	Upadacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	5 (2.54%)	0 (0.00%)	11 (5.24%)	6 (3.77%)	0 (0.00%)
	Atopic dermatitis	N (%)	197 (100.00%)	25 (100.00%)	210 (100.00%)	159 (100.00%)	7 (100.00%)
	Axial spondylitis	N (%)	17 (8.63%)	<5	5 (2.38%)	23 (14.47%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	47 (23.86%)	<5	<5	51 (32.08%)	0 (0.00%)
	Juvenile arthritis	N (%)	11 (5.58%)	0 (0.00%)	0 (0.00%)	10 (6.29%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	7 (3.55%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Psoriatic arthritis	N (%)	16 (8.12%)	0 (0.00%)	11 (5.24%)	65 (40.88%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	43 (21.83%)	5 (20.00%)	9 (4.29%)	83 (52.20%)	<5
Time from indication to treatment initiation (month)	Atopic dermatitis	Median [Q25 - Q75]	101 [43 - 132]	54 [25 - 85]	40 [17 - 107]	62 [27 - 147]	33 [27 - 35]
		Mean (SD)	88.54 (48.30)	60.94 (42.41)	68.60 (66.89)	84.63 (62.23)	31.57 (8.18)
		Range	0 to 153	10 to 180	0 to 268	0 to 189	19 to 43
Axial spondylitis							
Number subjects	-	N	143	15	197	93	5
Age	-	Median [Q25 - Q75]	47 [38 - 54]	53 [47 - 64]	51.00 [42.00 - 60.00]	51 [44 - 59]	50 [40 - 53]

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Mean (SD)	45.56 (12.81)	54.60 (13.57)	51.20 (12.73)	51.25 (12.55)	46.60 (8.68)
		Range	19 to 75	29 to 82	21.00 to 83.00	21 to 80	35 to 55
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	19 to 40	N (%)	48 (33.57%)	<5	38 (19.29%)	19 (20.43%)	<5
	41 to 60	N (%)	79 (55.24%)	8 (53.33%)	110 (55.84%)	52 (55.91%)	<5
	61 to 150	N (%)	16 (11.19%)	5 (33.33%)	49 (24.87%)	22 (23.66%)	0 (0.00%)
Sex	Female	N (%)	77 (53.85%)	10 (66.67%)	102 (51.78%)	57 (61.29%)	5 (100.00%)
	Male	N (%)	66 (46.15%)	5 (33.33%)	95 (48.22%)	36 (38.71%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	3 [1 - 7]	6.18 [2.96 - 17.84]	6 [3 - 16]	-
		Mean (SD)	-	6.18 (7.62)	11.53 (11.70)	9.79 (8.57)	-
		Range	-	0 to 25	0.99 to 50.33	1 to 33	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	5 (3.50%)	<5	0 (0.00%)	7 (7.53%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)	0 (0.00%)	<5	13 (13.98%)	0 (0.00%)
	Tofacitinib	N (%)	19 (13.29%)	5 (33.33%)	9 (4.57%)	12 (12.90%)	0 (0.00%)
	Upadacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	0 (0.00%)	0 (0.00%)	<5	5 (5.38%)	<5
	Atopic dermatitis	N (%)	17 (11.89%)	<5	5 (2.54%)	23 (24.73%)	0 (0.00%)
	Axial spondylitis	N (%)	143 (100.00%)	15 (100.00%)	197 (100.00%)	93 (100.00%)	5 (100.00%)
	Inflammatory bowel disease	N (%)	25 (17.48%)	<5	15 (7.61%)	27 (29.03%)	<5
	Juvenile arthritis	N (%)	15 (10.49%)	0 (0.00%)	<5	9 (9.68%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	10 (6.99%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Psoriatic arthritis	N (%)	15 (10.49%)	0 (0.00%)	32 (16.24%)	56 (60.22%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	68 (47.55%)	12 (80.00%)	71 (36.04%)	92 (98.92%)	<5

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Time from indication to treatment initiation (month)	Axial spondylitis	Median [Q25 - Q75]	102 [37 - 128]	67 [42 - 129]	54 [25 - 100]	120 [47 - 158]	14 [3 - 30]
		Mean (SD)	88.05 (49.38)	77.04 (48.36)	72.64 (59.99)	103.62 (59.56)	17.15 (15.28)
		Range	0 to 154	3 to 145	0 to 266	0 to 186	3 to 36
Inflammatory bowel disease							
Number subjects	-	N	373	14	281	183	5
Age	-	Median [Q25 - Q75]	38 [28 - 47]	45 [30 - 56]	42.00 [32.00 - 55.00]	44 [30 - 55]	47 [43 - 48]
		Mean (SD)	38.83 (12.99)	44.57 (18.40)	43.62 (13.84)	43.37 (16.07)	45.80 (7.66)
		Range	17 to 80	18 to 76	20.00 to 87.00	16 to 88	35 to 56
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	8 (2.14%)	<5	0 (0.00%)	5 (2.73%)	0 (0.00%)
	19 to 40	N (%)	208 (55.76%)	5 (35.71%)	130 (46.26%)	78 (42.62%)	<5
	41 to 60	N (%)	133 (35.66%)	5 (35.71%)	122 (43.42%)	68 (37.16%)	<5
	61 to 150	N (%)	24 (6.43%)	<5	29 (10.32%)	32 (17.49%)	0 (0.00%)
Sex	Female	N (%)	150 (40.21%)	5 (35.71%)	126 (44.84%)	94 (51.37%)	5 (100.00%)
	Male	N (%)	223 (59.79%)	9 (64.29%)	155 (55.16%)	89 (48.63%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	6 [4 - 10]	8.80 [3.61 - 13.77]	3 [2 - 5]	-
		Mean (SD)	-	6.51 (4.11)	9.46 (7.13)	4.34 (4.76)	-
		Range	-	1 to 15	0.92 to 42.68	0 to 33	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	6 (1.61%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Filgotinib	N (%)	6 (1.61%)	<5	9 (3.20%)	22 (12.02%)	0 (0.00%)
	Tofacitinib	N (%)	36 (9.65%)	<5	25 (8.90%)	14 (7.65%)	<5
	Upadacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	<5	0 (0.00%)	<5	5 (2.73%)	<5

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Atopic dermatitis	N (%)	47 (12.60%)	<5	<5	51 (27.87%)	0 (0.00%)
	Axial spondylitis	N (%)	25 (6.70%)	<5	15 (5.34%)	27 (14.75%)	<5
	Inflammatory bowel disease	N (%)	373 (100.00%)	14 (100.00%)	281 (100.00%)	183 (100.00%)	5 (100.00%)
	Juvenile arthritis	N (%)	11 (2.95%)	0 (0.00%)	0 (0.00%)	7 (3.83%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	6 (1.61%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Psoriatic arthritis	N (%)	9 (2.41%)	0 (0.00%)	8 (2.85%)	40 (21.86%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	38 (10.19%)	<5	31 (11.03%)	69 (37.70%)	5 (100.00%)
Time from indication to treatment initiation (month)	Inflammatory bowel disease	Median [Q25 - Q75]	76 [31 - 131]	72 [53 - 105]	46 [28 - 94]	92 [46 - 167]	34 [33 - 36]
		Mean (SD)	78.95 (51.25)	75.86 (49.18)	65.02 (50.99)	101.09 (61.90)	33.87 (3.78)
		Range	0 to 155	0 to 163	0 to 271	1 to 189	28 to 38
Juvenile arthritis							
Number subjects	-	N	81		20	42	<5
Age	-	Median [Q25 - Q75]	29 [25 - 38]		29.50 [23.00 - 44.25]	44 [29 - 54]	<5
		Mean (SD)	33.19 (12.62)		33.95 (11.98)	42.62 (14.32)	<5
		Range	16 to 66		21.00 to 61.00	19 to 75	<5
Age group	0 to 3	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	<5		0 (0.00%)	0 (0.00%)	0 (0.00%)
	19 to 40	N (%)	59 (72.84%)		14 (70.00%)	18 (42.86%)	<5
	41 to 60	N (%)	15 (18.52%)		5 (25.00%)	19 (45.24%)	<5
	61 to 150	N (%)	<5		<5	5 (11.90%)	0 (0.00%)
Sex	Female	N (%)	60 (74.07%)		18 (90.00%)	34 (80.95%)	<5
	Male	N (%)	21 (25.93%)		<5	8 (19.05%)	0 (0.00%)

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Treatment duration (month)	-	Median [Q25 - Q75]	-		5.13 [1.71 - 9.95]	7 [3 - 16]	-
		Mean (SD)	-		8.15 (9.40)	10.18 (9.40)	-
		Range	-		0.99 to 39.46	1 to 33	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	17 (20.99%)		<5	10 (23.81%)	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)		<5	8 (19.05%)	0 (0.00%)
	Tofacitinib	N (%)	23 (28.40%)		<5	11 (26.19%)	0 (0.00%)
	Upadacitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Atopic dermatitis	N (%)	11 (13.58%)		0 (0.00%)	10 (23.81%)	0 (0.00%)
	Axial spondylitis	N (%)	15 (18.52%)		<5	9 (21.43%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	11 (13.58%)		0 (0.00%)	7 (16.67%)	0 (0.00%)
	Juvenile arthritis	N (%)	81 (100.00%)		20 (100.00%)	42 (100.00%)	<5
	Juvenile idiopathic arthritis	N (%)	53 (65.43%)		<5	9 (21.43%)	<5
	Psoriatic arthritis	N (%)	10 (12.35%)		<5	21 (50.00%)	0 (0.00%)
	Rheumatoid arthritis	N (%)	61 (75.31%)		13 (65.00%)	41 (97.62%)	<5
Time from indication to treatment initiation (month)	Juvenile arthritis	Median [Q25 - Q75]	124 [111 - 135]		36 [25 - 92]	100 [44 - 158]	-
		Mean (SD)	116.40 (30.85)		65.22 (66.07)	98.40 (58.05)	-
		Range	5 to 155		12 to 238	1 to 189	-
Juvenile idiopathic arthritis							
Number subjects	-	N	53		<5	9	<5
Age	-	Median [Q25 - Q75]	29 [25 - 38]		<5	35 [25 - 47]	<5

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
		Mean (SD)	33.53 (12.99)		<5	35.00 (13.12)	<5
		Range	17 to 66		<5	19 to 53	<5
Age group	0 to 3	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	<5		0 (0.00%)	0 (0.00%)	0 (0.00%)
	19 to 40	N (%)	39 (73.58%)		<5	6 (66.67%)	<5
	41 to 60	N (%)	10 (18.87%)		0 (0.00%)	<5	0 (0.00%)
	61 to 150	N (%)	<5		0 (0.00%)	0 (0.00%)	0 (0.00%)
Sex	Female	N (%)	43 (81.13%)		<5	8 (88.89%)	<5
	Male	N (%)	10 (18.87%)		0 (0.00%)	<5	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-		-	5 [2 - 19]	-
		Mean (SD)	-		-	9.40 (9.43)	-
		Range	-		-	1 to 25	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	15 (28.30%)		<5	<5	0 (0.00%)
	Filgotinib	N (%)	0 (0.00%)		0 (0.00%)	<5	0 (0.00%)
	Tofacitinib	N (%)	15 (28.30%)		0 (0.00%)	<5	0 (0.00%)
	Upadacitinib	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Atopic dermatitis	N (%)	7 (13.21%)		0 (0.00%)	<5	0 (0.00%)
	Axial spondylitis	N (%)	10 (18.87%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	6 (11.32%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	Juvenile arthritis	N (%)	53 (100.00%)		<5	9 (100.00%)	<5
	Juvenile idiopathic arthritis	N (%)	53 (100.00%)		<5	9 (100.00%)	<5
	Psoriatic arthritis	N (%)	<5		0 (0.00%)	<5	0 (0.00%)
	Rheumatoid arthritis	N (%)	42 (79.25%)		<5	9 (100.00%)	<5

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Time from indication to treatment initiation (month)	Juvenile idiopathic arthritis	Median [Q25 - Q75]	123 [111 - 131]		-	61 [35 - 130]	-
		Mean (SD)	118.93 (26.68)		-	81.97 (61.80)	-
		Range	3 to 155		-	6 to 167	-
Psoriatic arthritis							
Number subjects	-	N	174	-	473	241	10
Age	-	Median [Q25 - Q75]	53 [44 - 61]	-	57.00 [50.00 - 64.00]	54 [45 - 63]	48 [42 - 52]
		Mean (SD)	51.29 (12.93)	-	56.64 (11.70)	53.41 (13.08)	47.30 (8.00)
		Range	19 to 75	-	25.00 to 88.00	21 to 84	33 to 59
Age group	0 to 3	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	0 (0.00%)		0 (0.00%)	0 (0.00%)	0 (0.00%)
	19 to 40	N (%)	39 (22.41%)	-	49 (10.36%)	43 (17.84%)	<5
	41 to 60	N (%)	91 (52.30%)	-	256 (54.12%)	120 (49.79%)	8 (80.00%)
	61 to 150	N (%)	44 (25.29%)	-	168 (35.52%)	78 (32.37%)	0 (0.00%)
Sex	Female	N (%)	113 (64.94%)	-	310 (65.54%)	161 (66.80%)	10 (100.00%)
	Male	N (%)	61 (35.06%)	-	163 (34.46%)	80 (33.20%)	0 (0.00%)
Treatment duration (month)	-	Median [Q25 - Q75]	-	-	7.98 [3.38 - 17.25]	8 [3 - 17]	-
		Mean (SD)	-	-	11.76 (10.55)	10.28 (8.44)	-
		Range	-	-	0.99 to 48.69	0 to 33	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	-	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Baricitinib	N (%)	5 (2.87%)	-	<5	23 (9.54%)	0 (0.00%)
	Filgotinib	N (%)	<5	-	<5	23 (9.54%)	0 (0.00%)
	Tofacitinib	N (%)	46 (26.44%)	-	71 (15.01%)	42 (17.43%)	6 (60.00%)
	Upadacitinib	N (%)	0 (0.00%)	-	0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	0 (0.00%)	-	6 (1.27%)	11 (4.56%)	0 (0.00%)

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
	Atopic dermatitis	N (%)	16 (9.20%)	-	11 (2.33%)	65 (26.97%)	0 (0.00%)
	Axial spondylitis	N (%)	15 (8.62%)	-	32 (6.77%)	56 (23.24%)	0 (0.00%)
	Inflammatory bowel disease	N (%)	9 (5.17%)	-	8 (1.69%)	40 (16.60%)	0 (0.00%)
	Juvenile arthritis	N (%)	10 (5.75%)	-	<5	21 (8.71%)	0 (0.00%)
	Juvenile idiopathic arthritis	N (%)	<5	-	0 (0.00%)	<5	0 (0.00%)
	Psoriatic arthritis	N (%)	174 (100.00%)	-	473 (100.00%)	241 (100.00%)	10 (100.00%)
	Rheumatoid arthritis	N (%)	96 (55.17%)	-	162 (34.25%)	222 (92.12%)	<5
Time from indication to treatment initiation (month)	Psoriatic arthritis	Median [Q25 - Q75]	94 [31 - 128]	-	43 [21 to 81]	88 [35 - 151]	35 [30 - 39]
		Mean (SD)	81.02 (49.94)	-	62.16 (58.87)	91.01 (60.35)	33.94 (7.92)
		Range	0 to 152	-	0 to 350	0 to 188	20 to 45
Rheumatoid arthritis							
Number subjects	-	N	708	19	1,556	380	95
Age	-	Median [Q25 - Q75]	54 [43 - 63]	57 [51 - 67]	59.00 [52.00 - 67.00]	53 [43 - 63]	49 [44 - 54]
		Mean (SD)	52.52 (13.77)	58.00 (11.23)	59.06 (12.12)	52.38 (14.13)	48.11 (7.34)
		Range	17 to 85	40 to 82	20.00 to 95.00	19 to 84	26 to 59
Age group	0 to 3	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	4 to 12	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	13 to 18	N (%)	<5	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	19 to 40	N (%)	142 (20.06%)	<5	101 (6.49%)	85 (22.37%)	12 (12.63%)
	41 to 60	N (%)	344 (48.59%)	11 (57.89%)	731 (46.98%)	175 (46.05%)	83 (87.37%)
	61 to 150	N (%)	219 (30.93%)	7 (36.84%)	724 (46.53%)	120 (31.58%)	0 (0.00%)
Sex	Female	N (%)	541 (76.41%)	16 (84.21%)	1,175 (75.51%)	270 (71.05%)	95 (100.00%)
	Male	N (%)	167 (23.59%)	<5	380 (24.42%)	110 (28.95%)	0 (0.00%)
	None	N (%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)	0 (0.00%)

						CDM name	
Variable name	Variable level	Estimate name	FinOMOP-HILMO	IPCI	IQVIA-DA Germany	NLHR	VID
Treatment duration (month)	-	Median [Q25 - Q75]	-	4 [1 - 8]	10.61 [3.65 - 23.72]	7 [3 - 16]	-
		Mean (SD)	-	6.24 (7.23)	14.98 (13.47)	9.72 (8.57)	-
		Range	-	0 to 25	0.99 to 51.91	0 to 33	-
Prior jak inhibitor use	Abrocitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	<5	0 (0.00%)
	Baricitinib	N (%)	113 (15.96%)	5 (26.32%)	50 (3.21%)	54 (14.21%)	<5
	Filgotinib	N (%)	<5	<5	43 (2.76%)	84 (22.11%)	0 (0.00%)
	Tofacitinib	N (%)	133 (18.79%)	7 (36.84%)	225 (14.46%)	74 (19.47%)	17 (17.89%)
	Upadacitinib	N (%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Indications	Alopecia areata	N (%)	<5	0 (0.00%)	25 (1.61%)	15 (3.95%)	6 (6.32%)
	Atopic dermatitis	N (%)	43 (6.07%)	5 (26.32%)	9 (0.58%)	83 (21.84%)	<5
	Axial spondylitis	N (%)	68 (9.60%)	12 (63.16%)	71 (4.56%)	92 (24.21%)	<5
	Inflammatory bowel disease	N (%)	38 (5.37%)	<5	31 (1.99%)	69 (18.16%)	5 (5.26%)
	Juvenile arthritis	N (%)	61 (8.62%)	0 (0.00%)	13 (0.84%)	41 (10.79%)	<5
	Juvenile idiopathic arthritis	N (%)	42 (5.93%)	0 (0.00%)	<5	9 (2.37%)	<5
	Psoriatic arthritis	N (%)	96 (13.56%)	0 (0.00%)	162 (10.41%)	222 (58.42%)	<5
	Rheumatoid arthritis	N (%)	708 (100.00%)	19 (100.00%)	1,556 (100.00%)	380 (100.00%)	95 (100.00%)
Time from indication to treatment initiation (month)	Rheumatoid arthritis	Median [Q25 - Q75]	101 [49 - 122]	56 [31 - 81]	60 [28 - 104]	103 [47 to 160]	37 [24 to 40]
		Mean (SD)	87.13 (44.12)	63.67 (43.93)	74.28 (58.02)	100.73 (58.71)	31.18 (13.47)
		Range	0 to 154	3 to 145	0 to 344	0 to 190	0 to 48

13.3 Other analysis

Large-scale characterisation was conducted with no remarkable additional findings on JAKi indications. Full results are available at Study_P3_C1_001 - DARWIN EU®.

14. MANAGEMENT AND REPORTING OF ADVERSE EVENTS/ADVERSE REACTIONS

Adverse events/adverse reactions were not collected or analysed as part of this evaluation. The nature of this non-interventional evaluation, through the use of secondary data, does not fulfil the criteria for reporting adverse events, according to module VI, VI.C.1.2.1.2 of the Good Pharmacovigilance Practices (https://www.ema.europa.eu/en/documents/regulatory-procedural-guideline/guideline-good-pharmacovigilance-practices-gvp-module-vi-collection-management-submission-reports_en.pdf).

Only in case of prospective data collection, there is a need to describe the procedures for the collection, management and reporting of individual cases of adverse events/adverse reactions.

15. DISCUSSION

15.1 Key results

Among the 5 included JAKi ingredients, tofacitinib had the highest count of initiators across the databases, ranging from 160 (VID) to 2,129 (FinOMOP-HILMO), which added up to a total of 5,554 individuals. Abrocitinib had the lowest count, with only 20 individuals from IPCI and 298 from NLHR. In general, new use of JAKi increased over the study period in most databases. Baricitinib and tofacitinib showed the earliest rising trend, while use of filgotinib and upadacitinib were subsequently observed since 2020. Abrocitinib was only observed from 2022.

Among the 5 included JAKi ingredients, the median age of initiation was youngest for abrocitinib, with most users starting therapy before they turned 40. Most of all other JAKi initiators were aged 41-60 years old in most scenarios.

Treatment duration was generally consistent with different JAKi ingredients among databases with sufficient data quality on treatment duration, with median treatment duration ranging from 3-9 months for filgotinib to 4-10 months for abrocitinib. However, treatment duration of the same JAKi ingredient within the database varied and exhibited wide distribution. The IQR varied from 3-14 months for baricitinib to 3-21 months for tofacitinib in IQVIA-DA Germany, while that of NLHR varied from 2-11 months for upadacitinib to 4-29 months for baricitinib.

The majority of JAKi initiators had a history of rheumatoid arthritis as their likely indication, except for abrocitinib, where 31.3% of new users in IPCI and 99.7% in NLHR had a record of atopic dermatitis. After rheumatoid arthritis and (for abrocitinib) atopic dermatitis, other commonly recorded indications for JAKi included inflammatory bowel disease, psoriatic arthritis, and axial spondylitis. In general, over 90% of new JAKi users had a history of at least one potential indication in all databases except IPCI, in which the proportion with recorded likely indication was lower (31.2-55.5%).

15.2 Limitations of the research methods

General limitations

The study was informed by routinely collected health care data and so data quality issues must be considered. In this study in particular, misclassification is possible for drug exposures, as a recording of a prescription or dispensation does not mean that the patient actually took the drug. In addition, assumptions around the duration of drug use are unavoidable. However, we used validated methods for

the estimation of treatment duration, based on the concatenation of prescriptions and accounting for refill gaps.(8)

The actual indication for prescription of the drugs of interest is not recorded in any of the databases. We assessed indication via a proxy based on pre-defined conditions recorded on or before the date of therapy initiation. Therefore, recording of potential indication may be incomplete.

Finally, the completeness of recording of co-morbidities used for patient characterisation may vary across databases, as they cover different healthcare settings and have different follow-up.

Database-specific limitations

FinOMOP-HILMO: Drug exposure duration is given as 30 days as default for all prescription records in the FinOMOP-HILMO database, but multiple dispensations based on one prescription is allowed. From the data available, the first and last dispensation of JAKi prescriptions were on average 6-12 months apart, and therefore even when we consider the gap era of 90 days the treatment duration remained at 30 days.

IQVIA-DA Germany: The observation period of the patients in this database is calculated based on the last visit, observation or interaction of the patient with the health care system. This methodology impacts the individuals considered "at risk" for the different medicines of interest of the study (i.e., the individuals included in the denominator populations) during the latest months of available data from the latest data lock, where healthy and/or non-frequent users of the health care system are typically not considered active. Consequently, the denominators used to calculate incidence of JAKi initiation may present an artefactual decrease whilst incident users remain stable. To minimise the resulting artificial inflation of rates, we stopped the observation period of IQVIA-DA Germany 6 months before their data cut.

NLHR: Drug dispensing records are only available from 2018 onwards, therefore the spike of incidence in 2018 may be attributable to misclassification of certain prevalent JAKi users as incident JAKi users.

VID: Only female individuals are included in the current version of the VID database provided to DARWIN EU®. Also, it is not mandatory to prescribe certain medications through the electronic prescription module in this data source, including JAKi. Therefore, the capture of JAKi usage in the current database does not provide the full picture of JAKi use in the catchment area. Dispensation records of JAKi will be available in future versions of VID, with coverage extending also to the male population.

15.3 Interpretation

The motivation of the current drug utilisation study is to estimate the incidence of new JAKi use over time and to characterise new users of JAKi to inform the feasibility of future safety studies within the DARWIN EU® network. We observed that the number of JAKi users increased over the study period, with the start and rising trend of each JAKi ingredient matching with the year of their marketing authorisation by EMA (**Table 1**). Baricitinib and tofacitinib were the two JAKi out of the five in the study receiving marketing authorisation from EMA earlier (in 2017), in line with our observation of increasing uptake in the early years of the study period. Upadacitinib, filgotinib and abrocitinib received marketing authorisation in 2019, 2020 and 2021 respectively, and therefore records for these drugs only appeared in the later years of this study. Despite the general rising trend in number of JAKi users, there was a marked decrease in JAKi use in NLHR and FinOMOP-HILMO during 2020, which coincided with the COVID-19 pandemic, compared to the years before and after.

Patient characteristics matched with the indication of different JAKi. Some JAKi are indicated for several rheumatological conditions (**Table 1**). Rheumatoid arthritis remained as the most common indication recorded among JAKi initiators of baricitinib, filgotinib, tofacitinib and upadacitnib. New JAKi users with these four JAKi ingredients were mostly female and aged 41-60, in line with the general demographics of

rheumatoid arthritis patients.(9) Conversely, abroticinib is only indicated in atopic dermatitis. Therefore, the sex distribution for abrocitinib initiation was balanced, and the majority of participants started taking this therapy at a much younger age, in line with the epidemiology of atopic dermatitis.(10)

We report on data quality for future studies. First, regarding completeness of recorded indication, we could identify a history compatible with JAKi indication for 9 in 10 new JAKi users in all databases except IPCI. One possible reason could be that IPCI is a primary care database with GP records while most of the indications are rheumatological conditions and require specialised care. Secondly, findings on treatment duration in VID and FinOMOP-HILMO were not informative due to data incompleteness as stated in the above limitations.

The treatment duration was short in general. The median treatment duration for all included JAKi ingredients was consistently less than 1 year across databases with sufficient data quality. This is not an uncommon finding. In a meta-analysis on the effectiveness of tofacitinib in patients with ulcerative colitis including 19 observational studies with median follow-up duration of 7-44 weeks, the treatment discontinuation rate was 12-56.1%.(11) The treatment duration from the current study was much shorter than that from the ORAL Surveillance study(3), of which the median duration of tofacitinib use in rheumatoid arthritis patients was 44 months in this post-authorisation safety study. Future JAKi safety study/ies should take this into account during the study design. Researcher should also be aware of the short treatment duration of JAKi in real-world settings and be cautious with the interpretation of results from the future safety study/ies with regards to the treatment duration.

Switching of JAKi was not uncommon, as we observed from the study results. For example, 4-30% of filgotinib initiators with rheumatoid arthritis had received baricitinib, 14-24% tofacitinib and 1.4-20% upadacitinib before the index treatment initiation. Similarly, a considerable proportion of upadacitinib initiators with rheumatoid arthritis had received baricitinib (3.2-26.3%), tofacitinib (14.5%-36.8%) or filgotinib (2.8-22.1%). This information is important and must be considered when designing future JAKi safety study/ies.

There is a scarcity of literature on the utilisation of JAKi in Europe. One previous study has reported on the use of JAKi in Canada from 2016 to 2022.(12) The study analysed pharmacy dispensing records in 10 Canadian provinces. Tofacitinib was the most commonly dispensed JAKi, accounting for 76% of records, followed by upadacitinib at 7.9% and baricitinib at 1.1%. There are also US-based reports of the utilisation of tofacitinib in patients with psoriatic arthritis(13) and in patients with ulcerative colitis(14). One drug utilisation study examined the use of tofacitinib or baricitinib in rheumatoid arthritis patients in Italy.(15) To our knowledge, no drug utilisation study has been conducted on the use of JAKi in multiple databases from different European countries. This highlights the importance of the current drug utilisation study to understand the use of JAKi in Europe.

15.4 Generalisability

The study included databases from five European countries (Finland, the Netherlands, Germany, Norway and Spain) covering different parts of Europe. The study also included data from diverse healthcare settings including primary care and specialist care, secondary care, and hospital inpatient care. However, findings from this study only reflect the situation in the specific region, setting and period covered by the respective database, and should not to be generalised to other countries or databases.

16. CONCLUSION

New use of JAKi increased over the year from 2017 to 2023. Among the 5 included JAKi ingredients, tofacitinib had the highest count of initiators across the databases, whilst abrocitinib had the lowest count. Except for abrocitinib, most JAKi intiators were aged 41-60 at the time of initiation, and predominantly female. The most common recorded indication was rheumatoid arthritis, except for abrocitinib where it was atopic dermatitis. Average duration of the index JAKi treatment was generally less than a year, and switching (among different JAKi) was not uncommon.

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18. ANNEXES

Appendix I: List of concept definitions

	concept_id
Drug	
Abrocitinib	36922597
Abrocitinib	1758974
Abrocitinib	1758986
Abrocitinib	36952118
Abrocitinib	1758991
Abrocitinib	1758989
Abrocitinib	1758982
Abrocitinib	36930705
Abrocitinib	36941240
Abrocitinib	1758993
Abrocitinib	1758988
Abrocitinib	1758990
Abrocitinib	1758976
Abrocitinib	36927189
Abrocitinib	1758984
Abrocitinib	1758985
Abrocitinib	36920251
Abrocitinib	1758987
Abrocitinib	1758992
Abrocitinib	1758975
Abrocitinib	1758977
Abrocitinib	36935695
Abrocitinib	36946300
Abrocitinib	36963824
Abrocitinib	1758978
Abrocitinib	1758981
Abrocitinib	36949742
Abrocitinib	36947156
Abrocitinib	1758979
Abrocitinib	36947759
Abrocitinib	1758983
Baricitinib	36506007
Baricitinib	36787583
Baricitinib	40743760
Baricitinib	40743761
Baricitinib	36508742
Baricitinib	36787575

Baricitinib	36504859
Baricitinib	42875510
Baricitinib	2920717
Baricitinib	36787585
Baricitinib	36787579
Baricitinib	40743762
Baricitinib	1510630
Baricitinib	36787587
Baricitinib	779707
Baricitinib	1510638
Baricitinib	44185375
Baricitinib	36787582
Baricitinib	1510628
Baricitinib	42875511
Baricitinib	36508730
Baricitinib	36787572
Baricitinib	44187244
Baricitinib	36787574
Baricitinib	1510631
Baricitinib	1758613
Baricitinib	36787586
Baricitinib	1758612
Baricitinib	37497354
Baricitinib	36787577
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Baricitinib	36504599
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Baricitinib	36787591
Baricitinib	36787588
Baricitinib	1510637
Baricitinib	37497353
Baricitinib	42875514
Baricitinib	44187243
Baricitinib	1510627
Baricitinib	36503766
Baricitinib	36787589
Baricitinib	36787584
Baricitinib	44166708
Baricitinib	36421026
Baricitinib	1510632
Baricitinib	36787578
Baricitinib	36787581

Baricitinib	36509872
Baricitinib	779706
Baricitinib	42875515
Baricitinib	2920716
Baricitinib	1510629
Baricitinib	44169060
Baricitinib	37497352
Baricitinib	37592678
Baricitinib	1510635
Baricitinib	994802
Baricitinib	36787537
Baricitinib	36787576
Baricitinib	36787580
Baricitinib	36787573
Baricitinib	36508651
Baricitinib	1510636
Baricitinib	2056664
Baricitinib	1510634
Baricitinib	36787590
Baricitinib	44180263
Baricitinib	42875512
Filgotinib	36036733
Filgotinib	35896991
Filgotinib	35887301
Filgotinib	35896989
Filgotinib	35896993
Filgotinib	35896990
Filgotinib	35887307
Filgotinib	36036735
Filgotinib	35896998
Filgotinib	36036734
Filgotinib	35887303
Filgotinib	35891916
Filgotinib	35887308
Filgotinib	35887309
Filgotinib	35887300
Filgotinib	35896996
Filgotinib	35896994
Filgotinib	35896997
Filgotinib	35896995
Filgotinib	35887305
Filgotinib	35887302
Filgotinib	36036738

Filgotinib	35896992
Filgotinib	36036737
Filgotinib	35887310
Filgotinib	35896999
Filgotinib	35887306
Filgotinib	36036736
Filgotinib	35887304
Filgotinib	36953781
Filgotinib	36934485
Filgotinib	36946261
Filgotinib	36935408
Tofacitinib	36788672
Tofacitinib	43025851
Tofacitinib	1830306
Tofacitinib	1830308
Tofacitinib	36788670
Tofacitinib	35605688
Tofacitinib	42904205
Tofacitinib	36788677
Tofacitinib	36788665
Tofacitinib	36960395
Tofacitinib	1559832
Tofacitinib	37498556
Tofacitinib	35605683
Tofacitinib	2930688
Tofacitinib	37498555
Tofacitinib	1830302
Tofacitinib	36421481
Tofacitinib	36508461
Tofacitinib	36067671
Tofacitinib	1559833
Tofacitinib	36951570
Tofacitinib	36788681
Tofacitinib	1970541
Tofacitinib	2930690
Tofacitinib	36788676
Tofacitinib	43280270
Tofacitinib	42901964
Tofacitinib	36507751
Tofacitinib	739797
Tofacitinib	36509967
Tofacitinib	36788679
Tofacitinib	36933989

Tofacitinib	36943391
Tofacitinib	739798
Tofacitinib	36788673
Tofacitinib	42875334
Tofacitinib	739800
Tofacitinib	36788666
Tofacitinib	36035120
Tofacitinib	36035119
Tofacitinib	1830301
Tofacitinib	37592375
Tofacitinib	36508669
Tofacitinib	43025850
Tofacitinib	42901327
Tofacitinib	1830309
Tofacitinib	36788664
Tofacitinib	1830305
Tofacitinib	36067669
Tofacitinib	36504178
Tofacitinib	36246799
Tofacitinib	36246801
Tofacitinib	1830303
Tofacitinib	42656016
Tofacitinib	37498558
Tofacitinib	1970540
Tofacitinib	36788674
Tofacitinib	1559835
Tofacitinib	36246800
Tofacitinib	42901965
Tofacitinib	35605686
Tofacitinib	36814486
Tofacitinib	739801
Tofacitinib	42656011
Tofacitinib	36067668
Tofacitinib	1970546
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Tofacitinib	36788669
Tofacitinib	37498557
Tofacitinib	36421480
Tofacitinib	36788680
Tofacitinib	2930692
Tofacitinib	36812958

Tofacitinib	35605685
Tofacitinib	739796
Tofacitinib	36067670
Tofacitinib	1970545
Tofacitinib	2930689
Tofacitinib	2930687
Tofacitinib	42875333
Tofacitinib	42656012
Tofacitinib	21105873
Tofacitinib	37592376
Tofacitinib	42656015
Tofacitinib	36788678
Tofacitinib	35605684
Tofacitinib	36788667
Tofacitinib	36509806
Tofacitinib	739802
Tofacitinib	36035121
Tofacitinib	36812392
Tofacitinib	44074810
Tofacitinib	42656014
Tofacitinib	42901323
Tofacitinib	1830307
Tofacitinib	739799
Tofacitinib	36969044
Tofacitinib	1970539
Tofacitinib	36035122
Tofacitinib	37592374
Tofacitinib	1970542
Tofacitinib	2930691
Tofacitinib	35605687
Tofacitinib	43025852
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Tofacitinib	36504798
Tofacitinib	1970544
Tofacitinib	36788671
Tofacitinib	42901326
Tofacitinib	42656013
Tofacitinib	43025849
Tofacitinib	1559834
Tofacitinib	35605682
Tofacitinib	36035118
Tofacitinib	1830310
Tofacitinib	36961308

Tofacitinib	37499794
Tofacitinib	37499793
Tofacitinib	1970547
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Tofacitinib	44189253
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Tofacitinib	42683528
Tofacitinib	36788675
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Upadacitinib	36074830
Upadacitinib	1361602
Upadacitinib	1971258
Upadacitinib	1830865
Upadacitinib	1361604
Upadacitinib	36946517
Upadacitinib	36065552
Upadacitinib	1758760
Upadacitinib	1361597
Upadacitinib	1830862
Upadacitinib	2921731
Upadacitinib	1971257
Upadacitinib	1758759
Upadacitinib	1759248
Upadacitinib	780232
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Upadacitinib	1830869
Upadacitinib	779261
Upadacitinib	1361580
Upadacitinib	1361603
Upadacitinib	1361707
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Upadacitinib	36968864
Upadacitinib	1830871
Upadacitinib	1759249
Upadacitinib	36035858
Upadacitinib	1830864
Upadacitinib	1830870
Upadacitinib	36968418

Upadacitinib	36035857
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Upadacitinib	779263
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Upadacitinib	36065551
Upadacitinib	36065553
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Upadacitinib	1361598
Upadacitinib	36035856
Upadacitinib	36927195
Upadacitinib	1361605
Upadacitinib	36948574
Upadacitinib	1830866
Upadacitinib	1361601
Upadacitinib	779262
Upadacitinib	1361708
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Upadacitinib	1758758
Upadacitinib	1758761
Upadacitinib	780231
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Alopecia areata	4056343
Alopecia areata	4312756
Alopecia areata	4297823
Alopecia areata	4291286
Alopecia areata	4300913
Alopecia areata	4300912
Alopecia areata	4065243
Alopecia areata	4300910
Alopecia areata	4031164
Alopecia areata	4300094
Alopecia areata	4263194
Alopecia areata	4299701
Alopecia areata	4300911
Alopecia areata	4300914
Alopecia areata	4239312
Atopic dermatitis	4236759
Atopic dermatitis	4031630
Atopic dermatitis	4031013
Atopic dermatitis	4296192

Atopic dermatitis	4033671
Atopic dermatitis	4080929
Atopic dermatitis	4223641
Atopic dermatitis	4290736
Atopic dermatitis	4297478
Atopic dermatitis	4297494
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Atopic dermatitis	4298600
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Atopic dermatitis	4321570
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Atopic dermatitis	4290738
Atopic dermatitis	4206125
Atopic dermatitis	4031012
Atopic dermatitis	4031634
Atopic dermatitis	4290740
Atopic dermatitis	4031016
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Atopic dermatitis	4296190
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Atopic dermatitis	4033770
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Atopic dermatitis	4298599
Atopic dermatitis	4296191
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Atopic dermatitis	4210912
Axial spondylitis	4035614
Axial spondylitis	36716891
Axial spondylitis	607398
Axial spondylitis	3654715
Axial spondylitis	1340249
Axial spondylitis	4083681

Axial spondylitis	4079735
Axial spondylitis	37017494
Axial spondylitis	437082
Axial spondylitis	37203959
Axial spondylitis	4035741
Inflammatory bowel disease	602593
Inflammatory bowel disease	4031048
Inflammatory bowel disease	40479839
Inflammatory bowel disease	194077
Inflammatory bowel disease	40482241
Inflammatory bowel disease	1340491
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Inflammatory bowel disease	4342656
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Inflammatory bowel disease	4055020
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Inflammatory bowel disease	4266370
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Inflammatory bowel disease	46269890
Inflammatory bowel disease	46269889
Inflammatory bowel disease	4074815
Inflammatory bowel disease	4116142
Inflammatory bowel disease	4116143
Inflammatory bowel disease	75580
Juvenile arthritis	608034

Juvenile arthritis	608035
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Juvenile arthritis	42535177
Juvenile arthritis	42535150
Juvenile arthritis	608043
Juvenile arthritis	608044
Juvenile arthritis	608042
Juvenile arthritis	75621
Juvenile arthritis	608041
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Juvenile arthritis	608095
Juvenile arthritis	608092
Juvenile arthritis	37204149
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Juvenile arthritis	4261026
Juvenile arthritis	4132810
Juvenile arthritis	4257971
Juvenile arthritis	4132809
Juvenile arthritis	603150
Juvenile arthritis	72714
Juvenile arthritis	75622
Juvenile arthritis	72705
Juvenile arthritis	4035612
Juvenile arthritis	4079736
Juvenile arthritis	4079731
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Juvenile arthritis	762178
Juvenile arthritis	4115377
Juvenile arthritis	762180
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Juvenile arthritis	4114447
Juvenile arthritis	4261027
Juvenile arthritis	4132811
Juvenile arthritis	37207517
Juvenile arthritis	4132812
Juvenile arthritis	4257972
Juvenile arthritis	4079733
Juvenile arthritis	4079734

Juvenile arthritis	4083680
Juvenile arthritis	4253901
Juvenile arthritis	37209479
Juvenile arthritis	37204148
Juvenile idiopathic arthritis	4132810
Juvenile idiopathic arthritis	4257971
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Psoriatic arthritis	4025831
Psoriatic arthritis	46274123
Psoriatic arthritis	4079734
Psoriatic arthritis	4035742
Psoriatic arthritis	81931
Psoriatic arthritis	4132495
Psoriatic arthritis	4083682
Psoriatic arthritis	1340448
Psoriatic arthritis	1340520
Psoriatic arthritis	4064048
Psoriatic arthritis	40319772
Rheumatoid arthritis	46273442
Rheumatoid arthritis	44811155
Rheumatoid arthritis	44811154
Rheumatoid arthritis	44811153
Rheumatoid arthritis	44811152
Rheumatoid arthritis	44811151
Rheumatoid arthritis	44811073
Rheumatoid arthritis	44808003
Rheumatoid arthritis	44790163
Rheumatoid arthritis	42689682
Rheumatoid arthritis	42689681
Rheumatoid arthritis	42689680
Rheumatoid arthritis	42689679
Rheumatoid arthritis	42539550
Rheumatoid arthritis	42536657
Rheumatoid arthritis	42534841
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Rheumatoid arthritis	42534839
Rheumatoid arthritis	42534838
Rheumatoid arthritis	42534837
Rheumatoid arthritis	42534836
Rheumatoid arthritis	42534835
Rheumatoid arthritis	42534834
Rheumatoid arthritis	40484633
Rheumatoid arthritis	37395590

Rheumatoid arthritis	37309724
Rheumatoid arthritis	37309723
Rheumatoid arthritis	37309722
Rheumatoid arthritis	37209329
Rheumatoid arthritis	37209328
Rheumatoid arthritis	37209323
Rheumatoid arthritis	37209322
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Rheumatoid arthritis	37207804
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Rheumatoid arthritis	37108591
Rheumatoid arthritis	37108590
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Rheumatoid arthritis	36687005
Rheumatoid arthritis	36687003
Rheumatoid arthritis	36687002
Rheumatoid arthritis	36687001
Rheumatoid arthritis	36687000
Rheumatoid arthritis	36686999
Rheumatoid arthritis	36685024
Rheumatoid arthritis	36685023
Rheumatoid arthritis	36685022
Rheumatoid arthritis	36685021
Rheumatoid arthritis	36685020
Rheumatoid arthritis	36685019
Rheumatoid arthritis	36685018
Rheumatoid arthritis	36685017
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Rheumatoid arthritis	40482839
Rheumatoid arthritis	4028118
Rheumatoid arthritis	3654567