2ND meeting of the European Research Consortium on ITP

NEW INSIGHTS INTO IMMUNE THROMBOCYTOPENIA

Paris Crowne Plaza Paris République

April 23-24, 2026

Why registries are useful: advances and gaps

Guillaume Moulis

University of Toulouse – referral center for ITP & clinical investigation center, team of pharmacoepidemiology, Toulouse, France

Disclosures of

MOULIS Guillaume

Company name	Research support	Employee	Consultant	Stockholder	Speakers bureau	Advisory board	Other
Alpine						X	
Argenx	X					X	
Amgen	X				X	X	
Grifols	X				X	X	
Novartis	X				X	X	
Recordati	X				X	X	
Sanofi	X				X	X	
Sobi						X	
Takeda						X	

Cross-national studies

Uses	Examples
Geoepidemiology	• Variations of incidence • Causes of secondary ITP

Received: 20 December 2021 | Accepted: 14 February 2022
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Registries in immune thrombocytopenia (ITP) in Europe: the European Research Consortium on ITP (ERCI) network

Adapted from ERCI group, *Br J Haematol* 2022

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haematologica
Journal of the Ferrata Storti Foundation

Use of second-line and beyond maintenance therapies in adult patients with primary immune thrombocytopenia in Europe: a parallel study of six prospective multicenter national registries

by Guillaume Moulis, Frederick Chen, Giuseppe Carli, Waleed Ghanima, Karolin Trautmann-Grill, Thomas Stauch, Alexandra Schifferli, Haroon Miah, Manuela Rueter, Lisanna Ghiotto, Riccardo Tomasello, Annabell Georgi, Vickie McDonald, Francesco Zaja, Heidi Hassel Pettersen, Thomas Kühne, Maria Luisa Lozano, Tomás José González-López, Drew Provan, Marc Michel, Nichola Cooper, Francesco Rodeghiero and ERCI registry harmonization initiative group

- ✓ 2010-2022
- ✓ 5989 patients

ERCI group, *Haematologica* 2025

Table 1. Patients' characteristics.

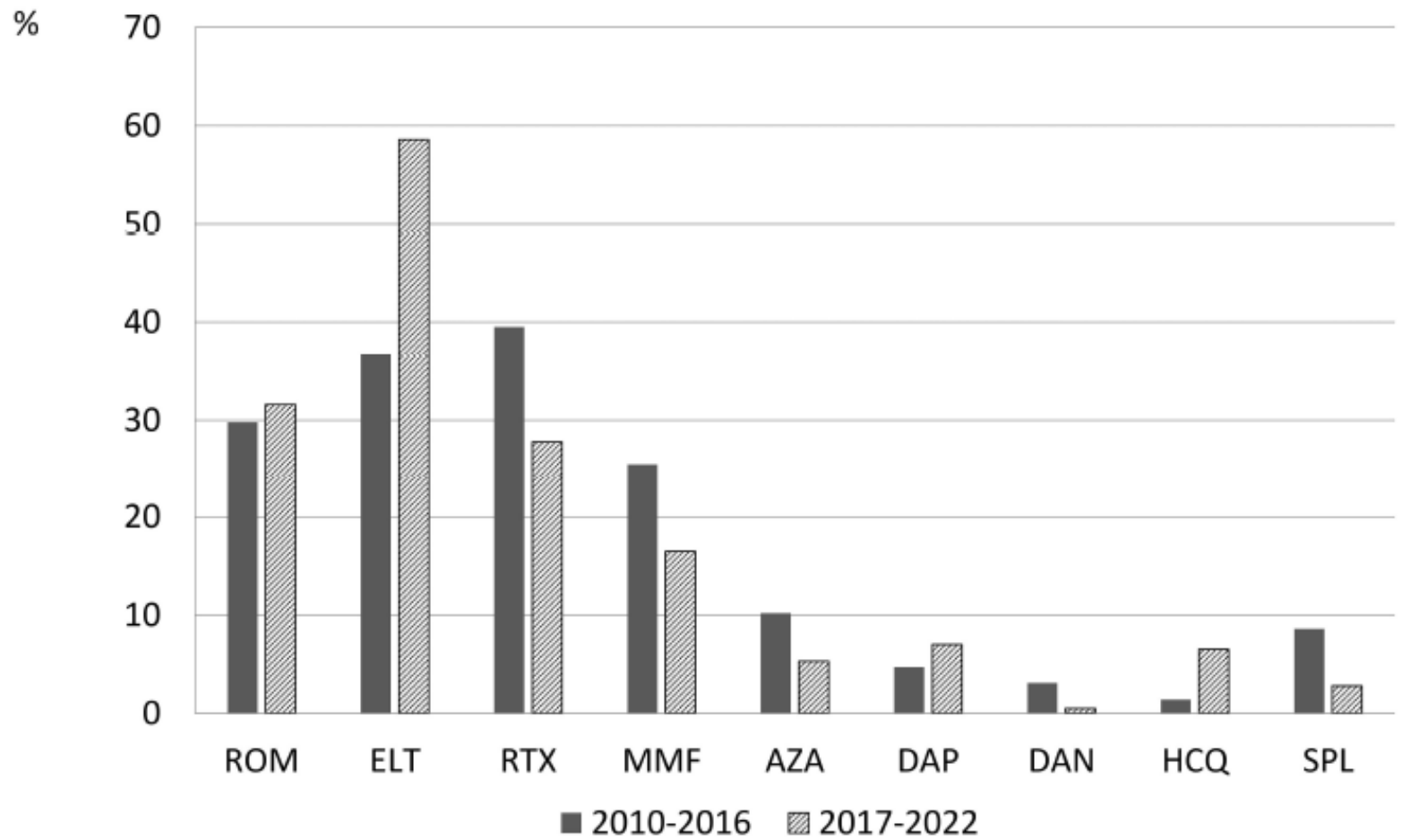
Characteristics	UK	France	Italy*	Norway	Germany	Switzerland-Serbia
Number of patients with pITP	3020	1263	n/a	172	105	25
Median age (Q1-Q3) at ITP diagnosis, years	56.6 (36.4-70.1)	62.0 (39.0-75.0)	58.7 (38.5-71.8)	50 (33-65)	66 (46-75)	47 (30.2-60.3)
Women, n (%)	1613 (53.4%)	668 (52.9%)	336 (55.6%)	97 (56.4%)	43 (40.9%)	13 (52.0%)
Bleeding at ITP diagnosis, n (%)	1328 (44.0%)	763 (60.4%)	n/a	88 (51.2%)	37 (48.7%)**	18 (72.0%)
Median platelet count at ITP diagnosis (Q1-Q3) x 10^9/L	19 (6-49)	18 (6-49)	19 (7-39)	22 (5-37)	27 (6-69)	13 (7-60)
Number of patients with pITP exposed to ITP treatment, n (%)	2467 (81.7%)	1072 (84.9%)	604 (n/a)	145 (84.3%)	65 (61.9%)	18 (72.0%)
Number of patients with pITP exposed to ITP maintenance (second line) treatment, n (%)	1233 (40.8%)	576 (45.6%)	428 (n/a)	92 (53.4%)	31 (29.5%)	9 (36.0%)
Number of patients with pITP exposed to ITP second maintenance (third line) treatment, n (%)	607 (20.1%)	272 (21.5%)	134 (n/a)	40 (23.3%)	7 (6.7%)	2 (8.0%)

Abbreviations: n/a, not available; pITP, primary immune thrombocytopenia.

*In the Italian registry, only patients on active treatment are included (at time of starting treatment or at first monitoring visit if already on treatment). Consequently, median age at ITP diagnosis, sex and platelet count at ITP diagnosis are presented only for patients who on active ITP treatment.

** 29 missing values.

ERCI group, *Haematologica* 2025



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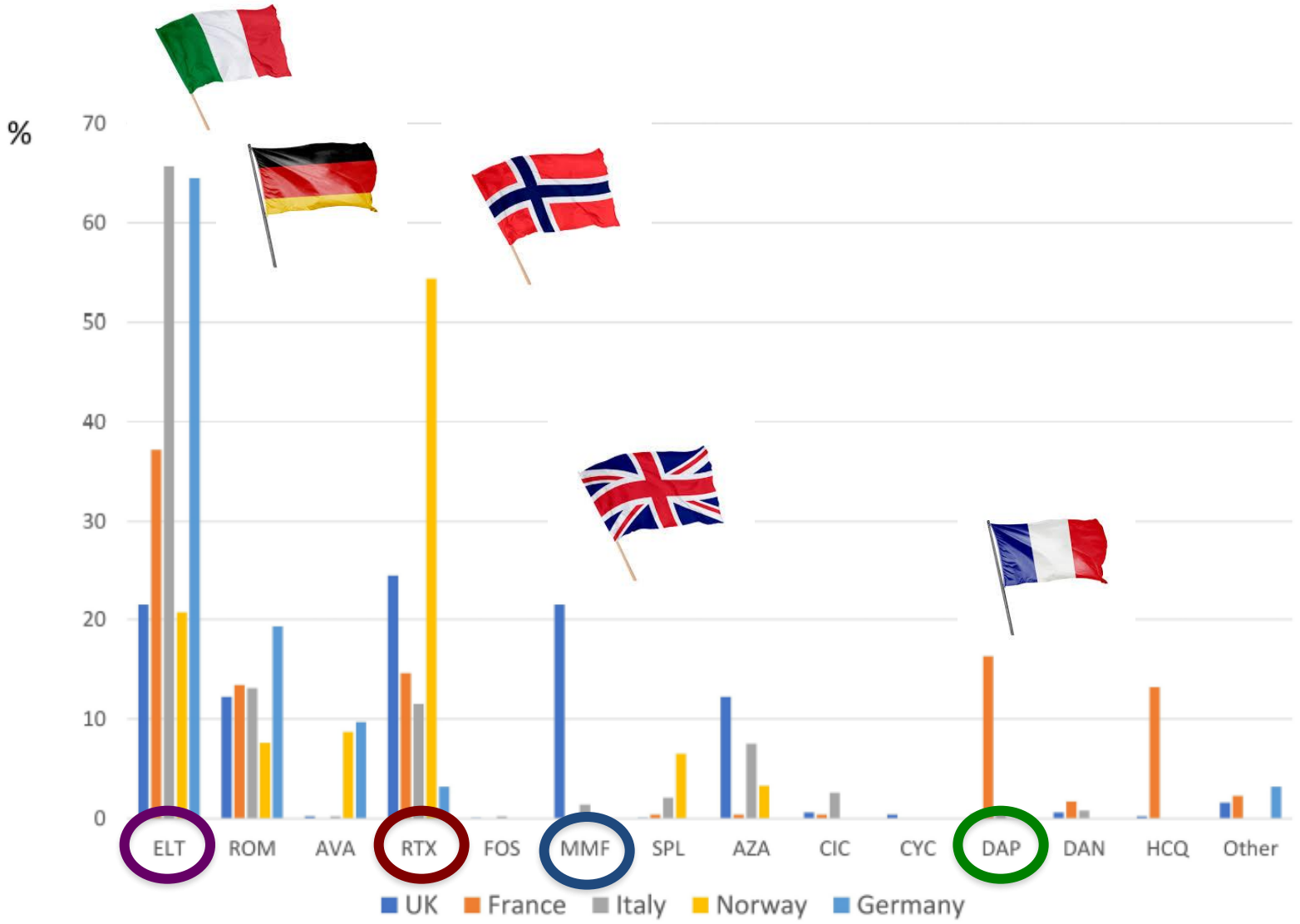

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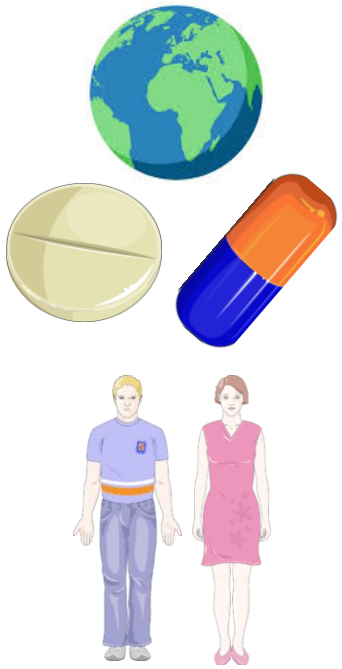
Cross-national studies



Uses	Examples
Geoepidemiology	• Variations of incidence • Causes of secondary ITP
Comparison of ITP management between countries	• Different populations • Comparisons of strategies
Increase the number of informative patients	• Rare events • Rare subgroups (e.g. multirefractory, secondary ITP) • Predictors of effectiveness/safety/events, incl. biomarkers and new tools like AI (training and use)

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Received: 16 June 2023 | Accepted: 31 July 2023
DOI: 10.1111/bjh.19075

REVIEW

Refractory immune thrombocytopenia in adults: Towards a new definition

Donald M. Arnold[1] | Bianca Clerici[1,2] | Ekaterina Ilicheva[3] | Waleed Ghanima[4,5,6]

TABLE 2 Frequency of exposure of ITP patients to multiple lines of treatment—Preliminary output from the McMaster and Norwegian ITP Registries.

Patient group	McMaster ITP registry	Norwegian ITP registry
ITP patients in the Registry	*N* = 531 including primary (*n* = 408) and secondary ITP (*n* = 123)	*N* = 255 including primary (*n* = 236) and secondary ITP (*n* = 19)
First-line therapy[a] + any second-line[b] therapy	225 (42%)	116 (45.5%)
First-line therapy + rituximab + TPO-RA	40 (7.5%)	28 (11%)
First-line therapy + rituximab + TPO-RA + splenectomy	25 (4.7%)	8 (3.1%)
First-line therapy + rituximab + TPO-RA + any immune suppressant medication[c]	30 (5.6%)	4 (1.6%)
First-line therapy + rituximab + TPO-RA + any immune suppressant medication + splenectomy	20 (3.8%)	1 (0.4%)

Received: 15 July 2023 | Accepted: 22 December 2023
DOI: 10.1111/bjh.19288

SHORT REPORT

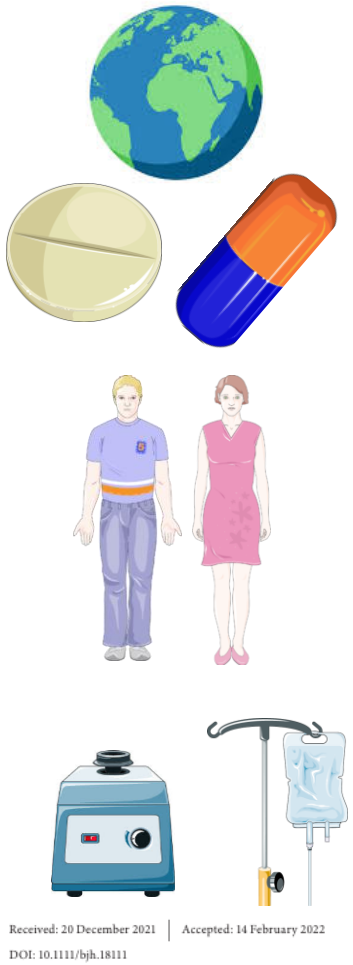
Difficult-to-treat primary immune thrombocytopenia in adults: Prevalence and burden. Results from the CARMEN-France registry

Guillaume Moulis[1,2] | Manuela Rueter[2] | Aymeric Duvivier[3] | Matthieu Mahévas[4] | Jean-François Viallard[5] | Thibault Comont[6] | Stéphane Chèze[7] | Sylvain Audia[8] | Mikaël Ebbo[9] | Louis Terriou[10] | Jean-Christophe Lega[11] | Pierre-Yves Jeandel[12] | Ines Hemim[3] | Sylvie Bozzi[3] | Ahmed Daak[13] | Hikaru Okada[14] | Bernard Bonnotte[8] | Marc Michel[4] | Maryse Lapeyre-Mestre[2,15] | Bertrand Godeau[4] | the CARMEN-France Investigators Group

Out of 1035 adult patients with a new diagnosis of primary ITP included in the registry during the study period, 821 had a ≥3-month follow-up. Among them, 687 (83.7%) were treated for ITP, including 384 (46.8%) with a second-line treatment. Twenty-nine patients met the definition of difficult-to-treat ITP, accounted for 3.5% (95% CI: 2.3%–4.8%) of all patients with primary ITP, 4.2% (95% CI: 2.7%–5.7%) of patients with primary ITP who needed a treatment and 7.6% (95% CI: 4.9%–10.2%) of patients with primary ITP who needed at least one second-line treatment.

Arnold *Br J Haematol* 2023
Moulis *Br J Haematol* 2023

Cross-national studies



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Increase the number of informative patients	• Rare events • Rare subgroups (e.g. multirefractory, secondary ITP) • Predictors of effectiveness/safety/events, incl. biomarkers and new tools like AI (training and use)
Identification of patients meeting inclusion criteria for clinical trials	• Facilitation of patient enrollment by countries

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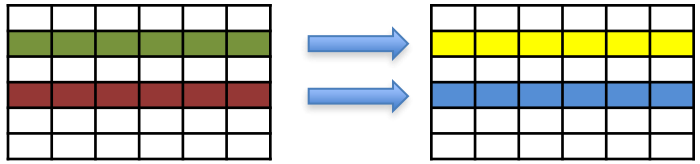
Adapted from ERCI group, *Br J Haematol* 2022

What has been achieved to date: common extraction model & statistical analysis plan

Pitfalls

1. **Adaptation of protocol to**
   - **data available in the database**
   - **database structure**
2. **Transformation of existing variables**
3. **Sharing of aggregated data**
   - **meta-analysis => common effect**
   - **but necessitates enough patients/events in each database**



- **Harmonization of data and structure**
- **Individual linkage**

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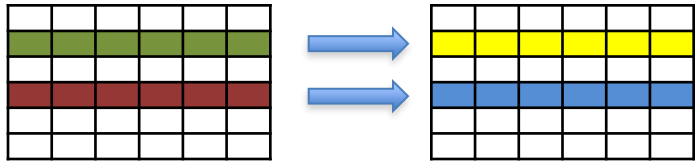

- **Harmonization of data and structure**
- **Individual linkage**

Priority: RWE of new treatments

FDA approves fostamatinib tablets for ITP

On April 17, 2018, the Food and Drug Administration approved fostamatinib disodium hexahydrate tablets (TAVALISSE, Rigel Pharmaceuticals, Inc.) for the treatment of thrombocytopenia in adult patients with chronic immune thrombocytopenia (ITP) who have had an insufficient response to a previous treatment.

Approval was based on two identical, double-blind, placebo-controlled trials, FIT-1 (NCT02076399) and FIT-2 (NCT02076412) that enrolled a total of 150 patients with persistent or chronic ITP who had an insufficient response to previous treatment, which included corticosteroids, immunoglobulins, splenectomy, and/or a thrombopoietin receptor agonist. Patients were randomized 2:1 to fostamatinib (100 mg orally twice daily) or placebo for 24 weeks. Dose could be escalated to 150 mg orally twice daily after one month.

Efficacy was based on stable platelet response (at least 50 x109/L on at least 4 of the 6 visits between Weeks 14 to 24). In FIT-1, stable platelet response was demonstrated in 18% (n=9) of patients receiving fostamatinib compared with 0% (n=0) of patients receiving placebo (p=0.03). In FIT-2, stable platelet response was seen in 16% (n=8) and 4% (n=1) of patients, respectively (p=0.26). In the FIT-3 (NCT 02077192) extension study, a stable response was observed in 23% (n=10) of patients newly exposed to fostamatinib. Durable platelet responses were seen in the FIT-1, FIT-2 trials and the FIT-3 extension study.

Priority: RWE of new treatments

TABLE 4 | Comparison of patients' characteristics and effectiveness outcomes in observational cohorts of adult patients with ITP treated with fostamatinib.

Characteristics and response rates	Andalusia $n=44$	Spain $n=138$	Italy $n=95$	Charlotte $n=31$	France $n=164$
Age, years[a]	58 (18–86)	66 (56–80)	64 (21–86)	50 (25–88)	59 (19–93)
Women, *n* (%)	21 (47.7)	77 (55.8)	56 (58.9)	18 (58.1)	91 (55.1)
Median duration of ITP (Q1–3), years	2.6 (0.4–23.3)	4.3 (0.8–13.8)	7.7 (0.1–50)	n/a	7.2 (0–48.8)
Newly diagnosed ITP, *n* (%)	3 (6.8)	15 (12.3)[b]	n/a	n/a	6 (3.7)
Persistent ITP, *n* (%)	6 (13.6)	21 (17.2)[b]	n/a	n/a	12 (7.3)
Chronic ITP, *n* (%)	35 (79.5)	86 (70.5)[b]	85 (89.5)	n/a	146 (89.0)
Median number of previous lines (min-max)	4 (1–8)	4 (2–5)	4 (1–24)	4 (2–7)	6 (1–13)
Previous treatments					
Eltrombopag, *n* (%)	36 (81.8)	105 (76.1)	72 (75.8)	15 (48.4)	128 (78.0)
Romiplostim, *n* (%)	26 (59.1)	79 (57.2)	53 (55.8)	19 (61.3)	122 (74.4)
Rituximab, *n* (%)	11 (25.0)	40 (29.0)	35 (36.8)	22 (71.0)	141 (86.0)
Mycophenolate/ azathioprine, *n* (%)	7 (15.9)	n/a	10 (10.5)/14 (14.7)	3 (9.7)	80 (48.8)
Splenectomy, *n* (%)	7 (15.9)	19 (13.8%)	22 (23.2)	6 (19.4)	46 (28.8)
Primary ITP, *n* (%)	44 (100)	122 (88.4)	89 (93.7)	n/a	134 (81.7)
Concomitant treatment at fostamatinib initiation, *n* (%)	n/a	56 (40.6)	29 (30.5)	7 (22.6)	107 (65.2)
Definition of response	$\geq 30\times10^9$/L	$\geq 30\times10^9$/L with doubling, no bleeding and no rescue in the previous 8 weeks	$\geq 30\times10^9$/L with doubling and no bleeding	$\geq 30\times10^9$/L with doubling and no bleeding at M6	Still on treatment, $\geq 30\times10^9$/L with no rescue in the previous 4 weeks
Median duration of fostamatinib (Q1-Q3), months	n/a; max 15	6.8 (2.6–14.7)	7.3 (3.22 -not reached)	n/a	6.4 (2.7–13.6)
Response rates	70.5% at W4 56.8% at M3	62.7% at M3 51.5% at M6	68% at M3 45% at M6	45.2% at any time 32.3% at M6	44.0% at M3 41.9% at M6 32.4% at M12 20.0% at M24

CeReCAI, *Am J Hematol* 2026

ERCI initiative for registry harmonization

Top priority : harmonized data for RWE of new drugs

ERCI
EUROPEAN RESEARCH CONSORTIUM ON ITP

ERCI working group with a panel of 20 participants (ITP expert, methodologist, epidemiologist, data scientist, data manager & biostatistician)

Review and meeting => consensus

External review board

New consensus meeting

Minimal common data set for new ITP drug registry (patient followed from drug initiation and forward) ERCI group

Consensus guidelines

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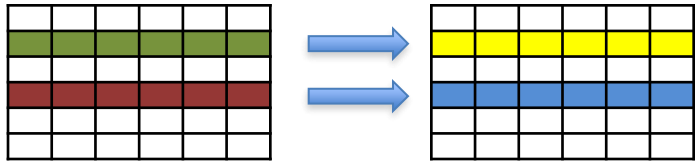
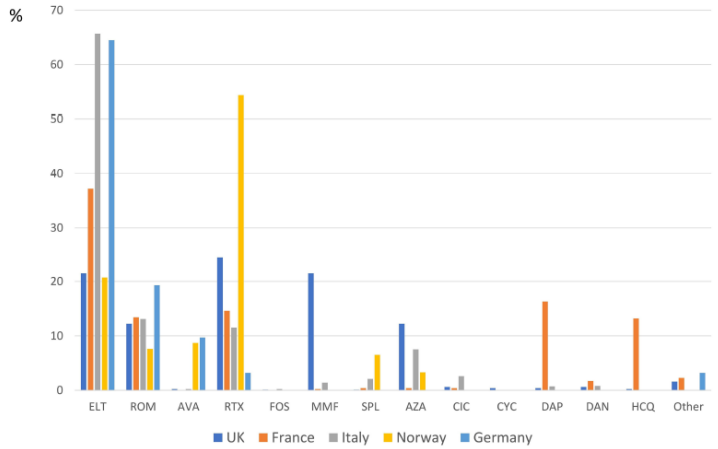


- **Harmonization of data and structure**
- **Individual linkage**

Individual linkage is needed

Models with rare populations/events



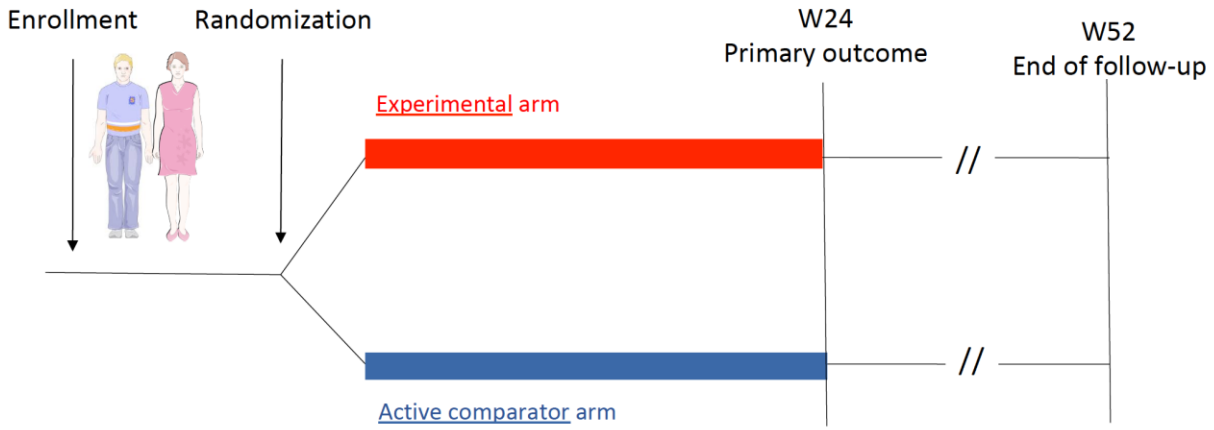
Emulated trials

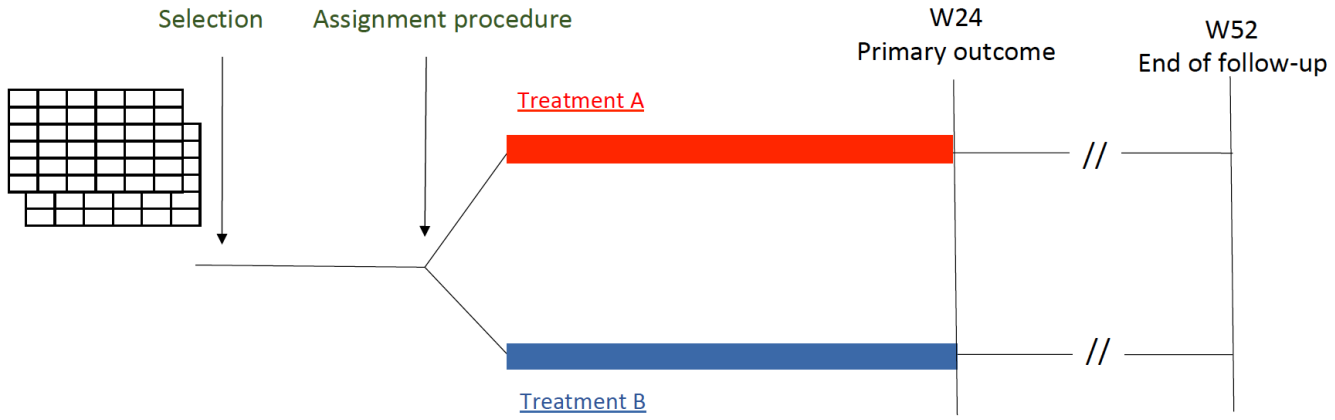
e.g.: comparison of rituximab, MMF and TPORA as second-line

Indirect treatment comparison

e.g. new drug versus standard of care

Pharmacoepi: what are emulated trials?





Deal with:

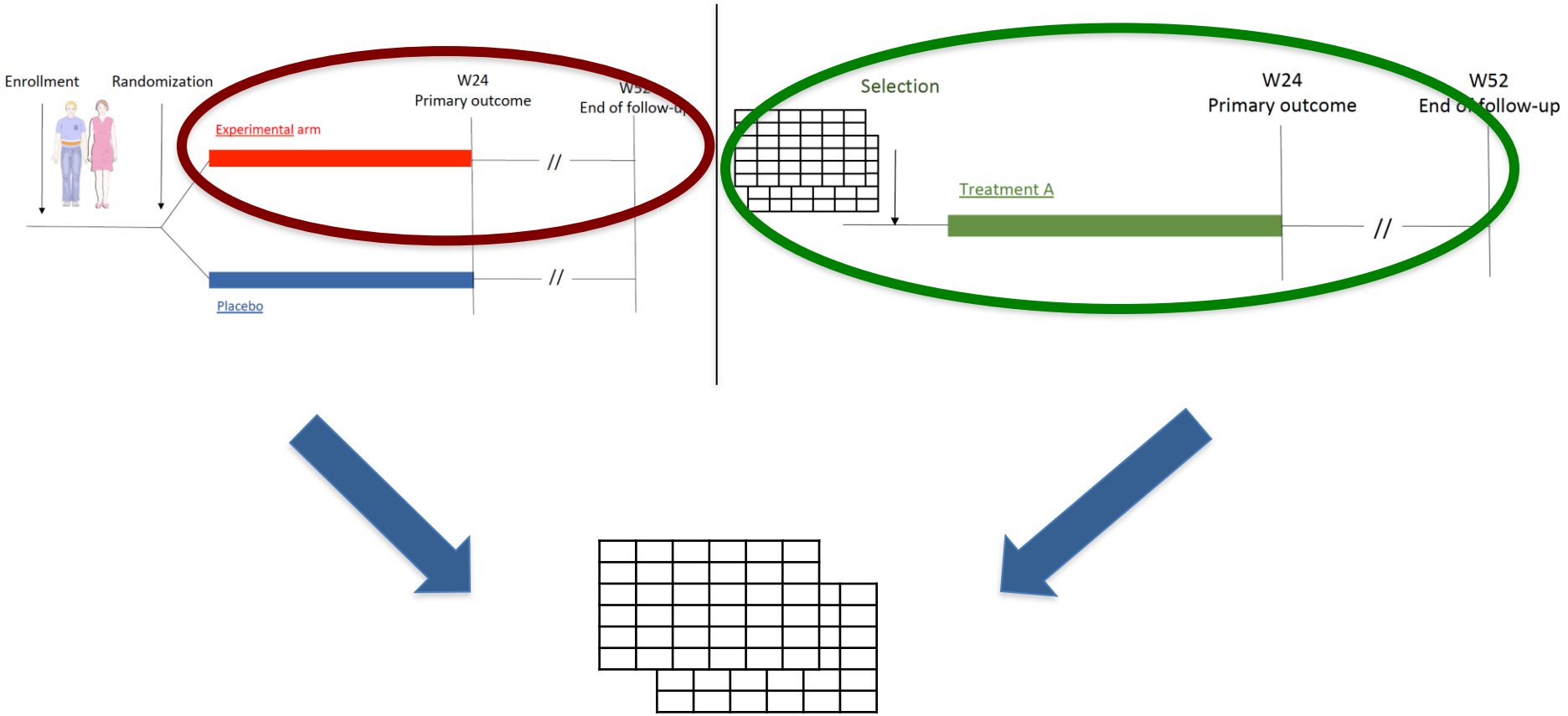
- Real-world non-standardized follow-up and measures
- Missing data
- Informative censoring
- Assumptions about estimand // lack of randomization
- …

Table 2. TARGET Checklist of Recommended Items to Address in Reports of Studies Emulating a Target Trial[a]

	Target trial specification			Target trial emulation	
6	Specify the components of the target trial protocol that would answer the causal question.		7	Describe how the components of the target trial protocol were emulated with the observational data, including how all variables were measured or ascertained.	
	Eligibility criteria			Eligibility criteria	
	a	Describe the eligibility criteria.		a	Describe how the eligibility criteria were operationalized with the data.
	Treatment strategies			Treatment strategies	
	b	Describe the treatment strategies that would be compared.		b	Describe how the treatment strategies were operationalized with the data.
	Assignment procedures			Assignment procedures	
	c	Report that eligible individuals would be randomly assigned to treatment strategies and may be aware of their treatment allocation.		c	Describe how assignment to treatment strategies was operationalized with the data.
	Follow-up			Follow-up	
	d	Clarify that follow-up would start at time of assignment to the treatment strategies. Specify when follow-up would end.		d	Clarify that follow-up starts at the time individuals were assigned to the treatment strategies. Describe how the end of follow-up was operationalized with the data.
	Outcomes			Outcomes	
	e	Describe the outcomes.		e	Describe how the outcomes were operationalized with the data.
	Causal contrasts			Causal contrasts	
	f	Describe the causal contrasts of interest, including effect measures.		f	Describe how the causal contrasts were operationalized with the data, including effect measures.
	Identifying assumptions			Identifying assumptions	
	g	Describe assumptions that would be made to identify each causal estimand. Describe the variables, if any, related to these assumptions.		g.i	For each causal estimand, describe assumptions made to identify it, including assumptions regarding baseline confounding due to lack of randomization.
				g.ii	Describe how the variables related to these assumptions were operationalized with the data.
	Data analysis plan			Data analysis plan	
	h	For each causal estimand, describe the data analysis procedures and any associated statistical modeling assumptions, including approaches for handling missing data.		h.i	For each causal estimand, describe the data analysis procedures and any associated statistical modeling assumptions, including approaches for handling missing data.
				h.ii	For each causal estimand, describe any additional analyses conducted to assess the sensitivity of the results to the choice of operationalizations, assumptions and analysis.

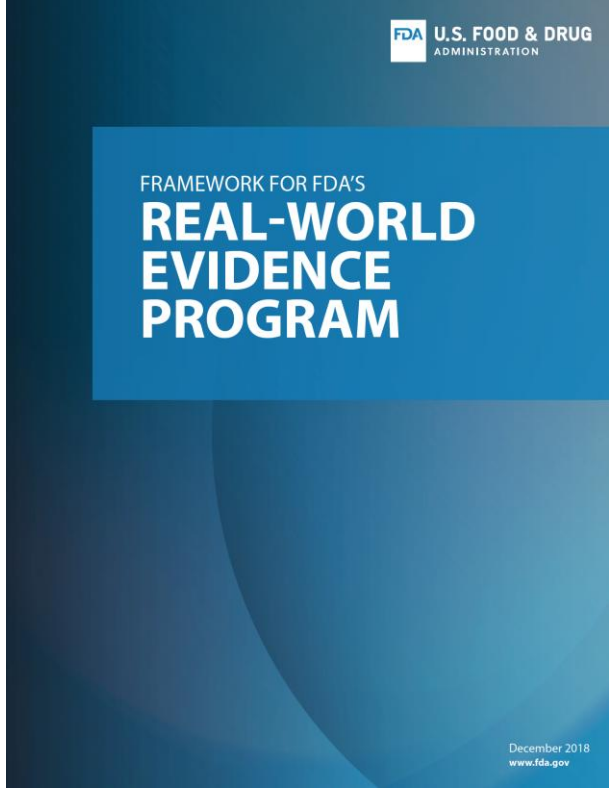
Cashin *JAMA* 2025

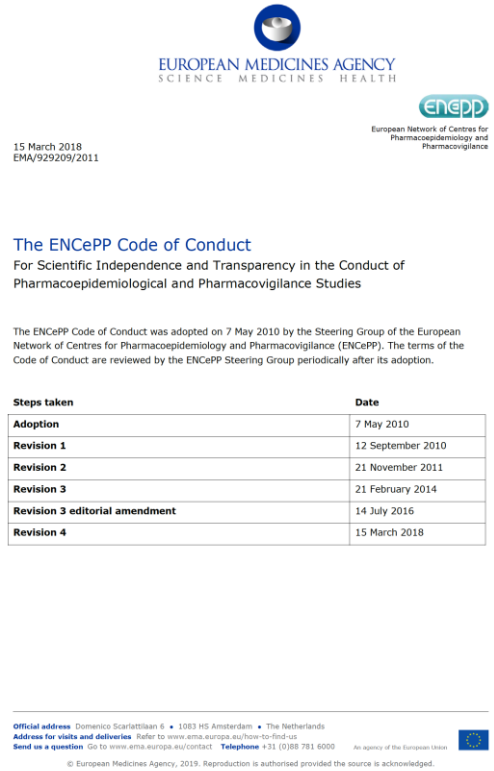
Pharmacoepi: what are indirect treatment comparisons?



Assignment procedure

Indirect comparison





Practical Guideline for Quantitative Evidence Synthesis: Direct and Indirect Comparisons

Adopted on 8 March 2024 by the HTA CG pursuant to Article 3(7), point (d), of Regulation (EU) 2021/2282 on Health Technology Assessment

COMMENTARY OPEN ACCESS

Preregistration: A Key to Credible Real-World Evidence Generation

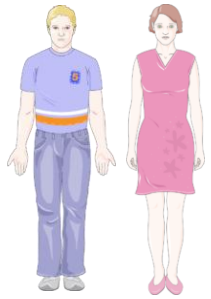
Emma Simonsen[1] | Shirley V. Wang[2,3] | Helene Kildegaard[1,4] | Anton Pottegård[1]

Simonsen *Pharmacoepidemiol Drug Saf* 2026

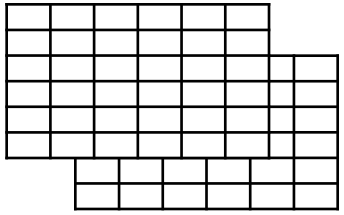
ITP registries: next steps

ITP registries: next steps

Informed patients



Contracts
Rules of access
Scientific committee



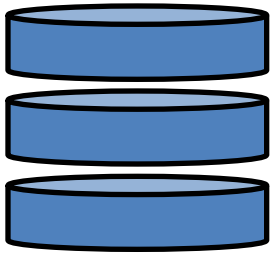
Anonymization

EUCERD
European Union Committee of Experts on Rare Diseases

EUCERD CORE RECOMMENDATIONS ON RARE DISEASE PATIENT REGISTRATION AND DATA COLLECTION

TO THE EUROPEAN COMMISSION, MEMBER STATES AND ALL STAKEHOLDERS

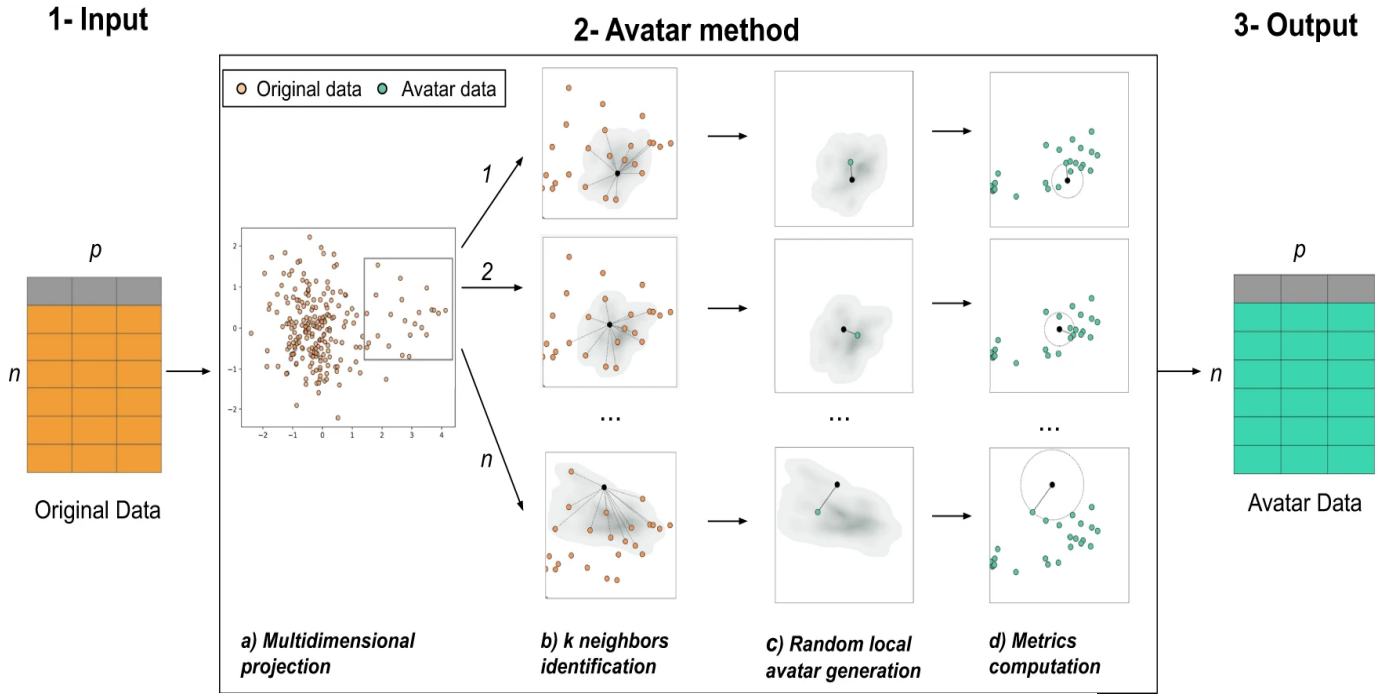
Harmonized data

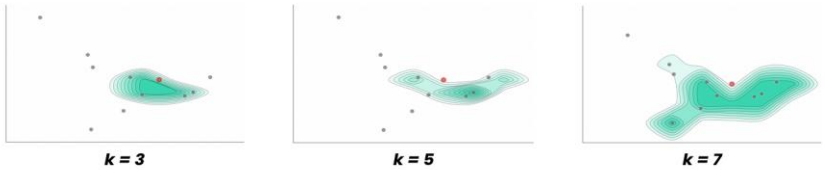


Data sharing in a certified data center

SUMMIT ON EUROPEAN DIGITAL SOVEREIGNTY

Anonymization: AI (generative adversarial networks) versus avatarization





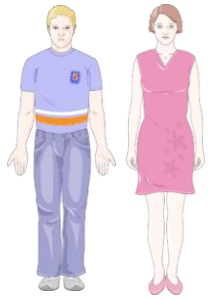
CeReCAI
Centre De Référence Cytopénies Auto-immunes de l'Adulte

CHU TOULOUSE

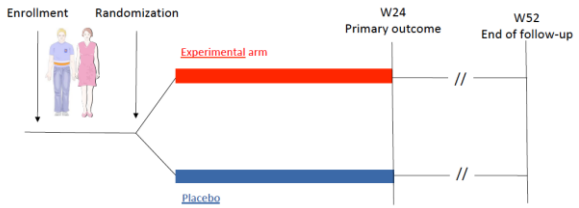
OCTOPIZE
MIMETHIK DATA

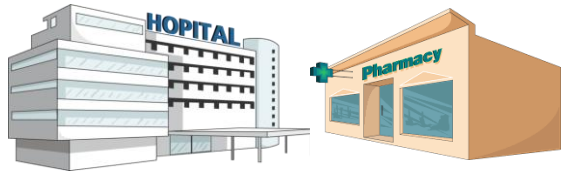
Future: direct combination & multiple data

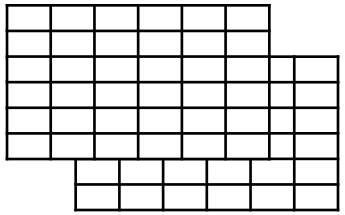
Informed patient



PROs

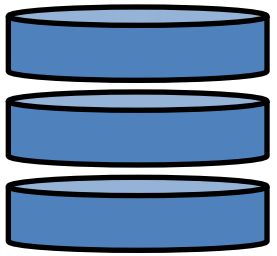


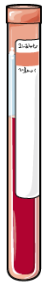




Harmonized data

Anonymization





Biobanking

Data sharing in a certified data center

± Synthetic patients

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