

Sustained response off-treatment and thrombotic events in patients with immune thrombocytopenia treated with fostamatinib: a systematic review and meta-analysis

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SUPPLEMENTARY DATA

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Supplemental Table 1. Operational definitions of sustained response off-treatment (SROT) across eligible studies

Eligible study	Provided definition of sustained response off-treatment
González-López, 2024	Successful and durable discontinuation of fostamatinib for over 9 months.
Mingot-Castellano, 2024	Possibility to discontinue chronic ITP treatment and maintain a safe platelet count for a prolonged period of time [not pre-specified].
Lucchini, 2025	N/A.

Abbreviations: N/A, not available.

Supplemental Table 2. Characteristics of eligible studies. Section A shows the characteristics of observational studies and Section B the characteristics of randomized controlled trials

Section A

Study	Country	Eligible patients (fostamatinib/ total)	Comparator	Length of treatment duration/ follow-up (months)	Females (n/N, %)	Age (years; median, IQR)	Primary ITP (n/N, %)	Disease duration (years; median)	Number of prior treatments (median, IQR)
Observational studies with data available on thrombosis									
Kuwana, 2025	Japan	22/22	No	NA/ 36	NA	NA	22/22 (100%)	NA	NA
González- López, 2024	Spain	138/138	No	7 (median)/ 27	77/138 (56%)	66 (56-80)	123/138 (89%)	4.25	4 (2-5)
Dranitsaris, 2024	USA	51/179	Yes (TPO-RA)	3 (median)/ 42	NA	NA	NA	NA	NA
Mingot- Castellano, 2024	Spain, Norway	18/18*	No	NA/ 8.5 (median)	4/18 (22%)	60 (37-69)	NA	1.50	4.5 (4-7)
Passucci, 2024	Italy	15/15	No	4 (median)/ 4 (median)	9/15 (60%)	55 (50-63)	NA	20.3	4 (2-7)
Mehta, 2022	USA	5/5	No	12 (median)/ 12 (median)	1/5 (20%)	79 (63-82)	NA	NA	2 (1-4)
Cooper, 2021	North America, Australia, Europe	146/146	No	19 (mean)/ 60	88/146 (60%)	53 (20-88)	146/146 (100%)	8	3 (1-13)
Lucchini, 2025	Italy	95/95	No	7 (median)/ 6	56/95 (58%)	64 (21-86)	89/95 (93%)	7.7	4 (1-24)
Observational studies with data available on SROT									
González- López, 2024	Spain	138/138	No	7 (median)/ 27	77/138 (56%)	66 (56-80)	123/138 (89%)	4.25	4 (2-5)
Mingot- Castellano, 2024	Spain	61/61	No	4 (median)/ 9 (median)	33/61 (54 %)	59 (49-78)	61/61 (100%)	1.50	4 (1-9)

Lucchini, 2025	Italy	95/95	No	7 (median)/ 6	56/95 (58%)	64 (21-86)	89/95 (93%)	7.7	4 (1-24)
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Abbreviations: IQR, interquartile range; ITP, immune thrombocytopenia; NA, not available; USA, United States of America; TPO-RA, thrombopoietin receptor agonist; SROT, sustained response off-treatment.

*All patients were on a combination therapy with fostamatinib and avatrombopag.

Section B

Study	Country	Patients (fostamatinib/ total)	Comparator	Study duration (months)	Females (n/N, %)	Age (years; median, IQR)	Primary ITP (n/N, %)	Disease duration (years; median, IQR)	Number of prior treatments (median, IQR)
Randomized controlled trial with data available on thrombosis									
Bussel, 2018	North America, Australia and Europe	101/150	Yes (placebo)	6	91/150 (61%)	NA	150/150 (100%)	NA	NA
Kuwana, 2023	Japan	22/34	Yes (placebo)	6	26/34 (76%)	63 (25-81)	34/34 (100%)	12 (1-41)	2 (1-10)

Abbreviations: IQR, interquartile range; ITP, immune thrombocytopenia; NA, not available.

None of the eligible randomized controlled trials had data available on sustained response off-treatment (SROT).

Supplemental Table 3. Arterial and venous thrombotic events in immune thrombocytopenia (ITP) patients treated with fostamatinib in observational studies and randomized controlled trials

Arterial thrombosis – Observational studies			
Study	Patients with events/Patients	Rate (%; 95% CI)	I ² ; p-value
Lucchini, 2025	0/95	0 (0-4)	
Kuwana, 2025	0/22	0 (0-15)	
González-López, 2024	1/138	1 (0-4)	
Dranitsaris, 2024	0/51	0 (0-7)	
Mingot-Castellano, 2024	0/18	0 (0-19)	
Passucci, 2024	0/15	0 (0-22)	
Mehta, 2022	0/5	0 (0-52)	
Cooper, 2021	1/146	1 (0-4)	
Pooled estimate	2/490	0 (0-2)	0%; 1
Venous thrombosis – Observational studies			
Study	Patients with events/Patients	Rate (%; 95% CI)	I ² ; p-value
Lucchini, 2025	0/95	0 (0-4)	
Kuwana, 2025	0/22	0 (0-15)	
González-López, 2024	1/138	1 (0-4)	
Dranitsaris, 2024	2/51	4 (1-14)	
Mingot-Castellano, 2024	0/18	0 (0-19)	
Passucci, 2024	0/15	0 (0-22)	
Mehta, 2022	0/5	0 (0-52)	
Cooper, 2021	0/146	0 (0-3)	
Pooled estimate	3/490	0 (0-3)	0%; 0.96
Arterial thrombosis – Randomized controlled trials			
Study	Patients with events/Patients	Rate (%; 95% CI)	I ² ; p-value
Kuwana, 2025	0/22	0 (0-15)	
Bussel, 2018	0/101	0 (0-4)	
Pooled estimate	0/123	0 (0-100)	0%; 1
Venous thrombosis – Randomized controlled trials			
Study	Patients with events/Patients	Rate (%; 95% CI)	I ² ; p-value
Kuwana, 2025	0/22	0 (0-15)	
Bussel, 2018	0/101	0 (0-4)	

Pooled estimate	0/123	0 (0-100)	0%; 1
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Abbreviations: CI, confidence interval.

No significant differences were observed between the raw frequencies of patients with arterial and venous thrombotic events ($p=0.65$) in observational studies.

Supplemental Table 4. Sensitivity analysis of thrombosis in immune thrombocytopenia (ITP) patients treated with fostamatinib in observational studies at lower risk of bias

Thrombosis			
Study	Patients with events/Patients	Rate (%; 95% CI)	I ² ; p-value
Kuwana, 2025	0/22	0 (0-15)	0%; 1
Cooper, 2021	1/146	1 (0-4)	
Pooled estimate	1/168	1 (0-4)	
Arterial thrombosis			
Study	Patients with events/Patients	Rate (%; 95% CI)	I ² ; p-value
Kuwana, 2025	0/22	0 (0-15)	0%; 1
Cooper, 2021	1/146	1 (0-4)	
Pooled estimate	1/168	1 (0-4)	
Venous thrombosis			
Study	Patients with events/Patients	Rate (%; 95% CI)	I ² ; p-value
Kuwana, 2025	0/22	0 (0-15)	0%; 1
Cooper, 2021	0/146	0 (0-3)	
Pooled estimate	0/168	0 (0-100)	

Abbreviations: CI, confidence interval.

No significant differences were observed between the raw frequencies of patients with arterial and venous thrombotic events ($p=0.32$) in observational studies at lower risk of bias.

Supplemental Figure 1. Assessment of the risk of bias of the studies eligible for the evaluation of thrombosis in immune thrombocytopenia (ITP) patients treated with fostamatinib in observational studies and in randomized controlled trials

Panel A.
Risk of bias,
observational studies

		Risk of bias domains						
		D1	D2	D3	D4	D5	D6	D7
Study	Kuwana M, 2025							
	Cooper N, 2021							
		Domains: D1: Bias due to confounding. D2: Bias due to selection of participants. D3: Bias in classification of interventions. D4: Bias due to deviations from intended interventions. D5: Bias due to missing data. D6: Bias in measurement of outcomes. D7: Bias in selection of the reported result.						
		Judgement Serious Low						

Panel B.
Risk of bias,
randomized
controlled trials

		Risk of bias domains				
		D1	D2	D3	D4	D5
Study	Bussel J, 2018					
	Kuwana M, 2025					
		Domains: D1: Bias arising from the randomization process. D2: Bias due to deviations from intended intervention. D3: Bias due to missing outcome data. D4: Bias in measurement of the outcome. D5: Bias in selection of the reported result.				
		Judgement Some concerns Low				

Panel A visualizes data regarding observational studies and Panel B visualizes data regarding randomized controlled trials.

Risk of bias assessment was performed independently by two researchers using separate tools for observational studies (ROBINS-I version 2) and randomized controlled trials (RoB2).

Results of complete risk of bias assessments were visualized using the *robvis* tool.

In accordance with the instructions for the use of the ROBINS-I version 2 tool ("Decide whether to proceed with a risk-of-bias assessment"), all observational studies eligible for the analysis of sustained response off-treatment and six observational studies eligible for the analysis of thrombosis did not undergo a complete risk of bias assessment, because they displayed baseline critical risk of bias due to uncontrolled confounding.

Full references of the eligible studies

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11. Lucchini E, Vianelli N, Consoli U, et al. Real-world efficacy and safety of fostamatinib in ITP patients: Italian multicentre experience. GIMEMA ITP1122 study. *Br J Haematol*. Published online August 25, 2025. doi:10.1111/bjh.70069