

Predicting disease remission in ulcerative colitis patients – early results from the PRESAGER study

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Background:

The disease course of ulcerative colitis (UC) remains unpredictable: while some patients experience years of remission, others experience frequent flares, hospitalization, and surgery.

Aims:

The PRESAGER study aims to develop decision models to predict UC disease activity. In this preliminary analysis, we created a logistic regression model to identify predictors of remission.

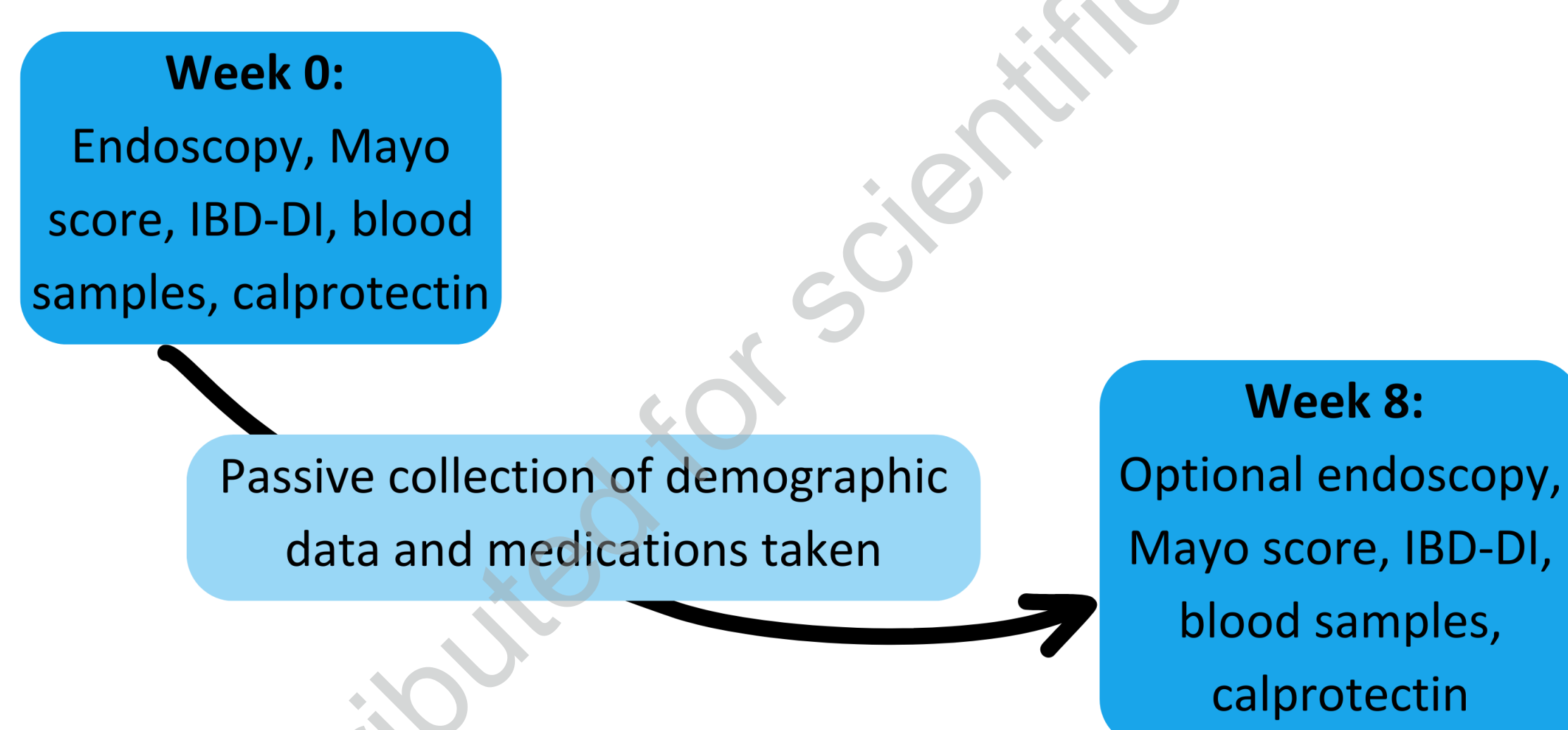
Methods:

Patients were consecutively screened and recruited from the endoscopy program at Hvidovre Hospital.

Inclusion criteria:

- UC patients with disease activity (Mayo endoscopic score [MES] ≥ 1)
- Diagnose of UC for at least 1 year

Data gathered:



Statistics:

- Multivariate logistic regression: predict disease remission at 8 weeks from inclusion data
 - Stepwise model selection by Akaike information criterion (AIC)
 - Create a smaller model with most relevant predictors

Results:

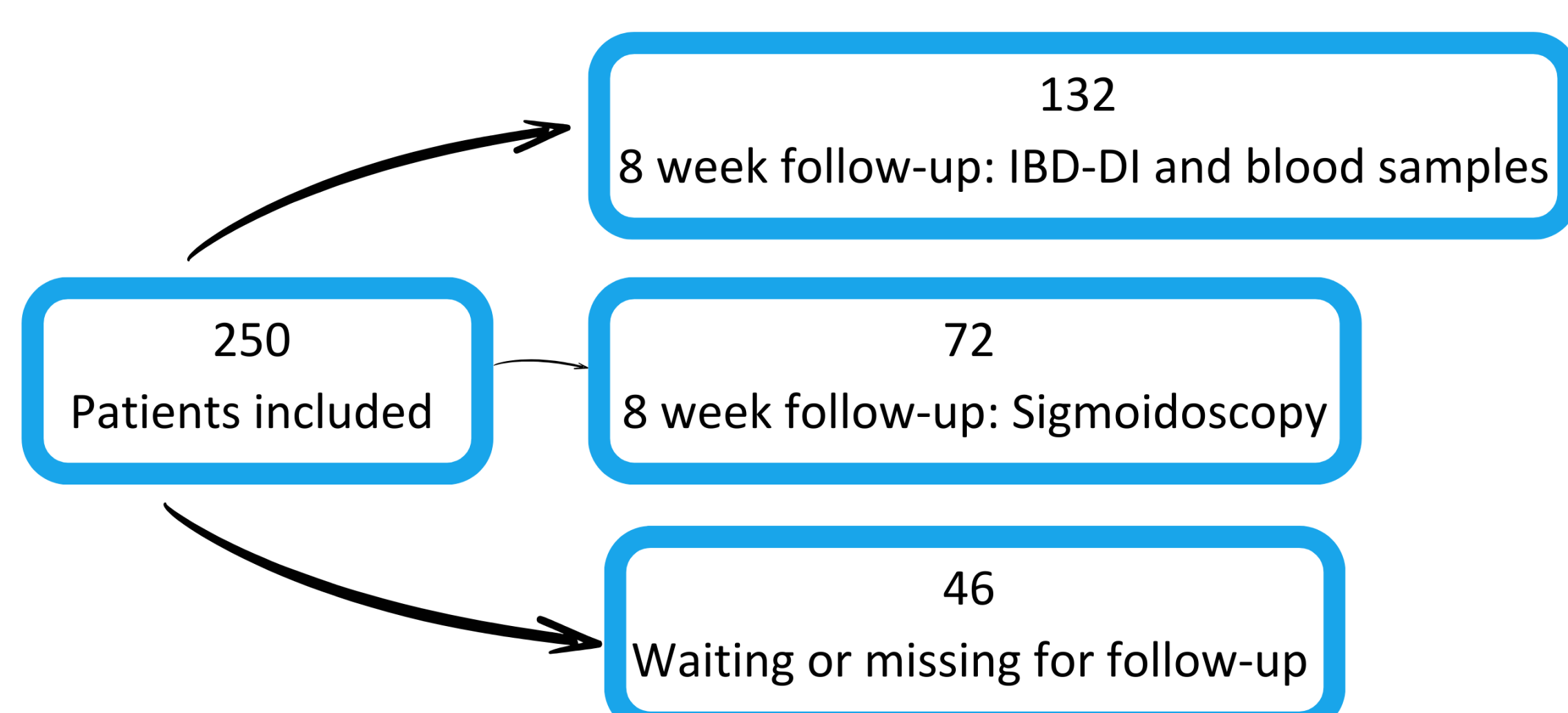


Figure 1: Percent of Population given Treatment within 14 days of Inclusion n(%)

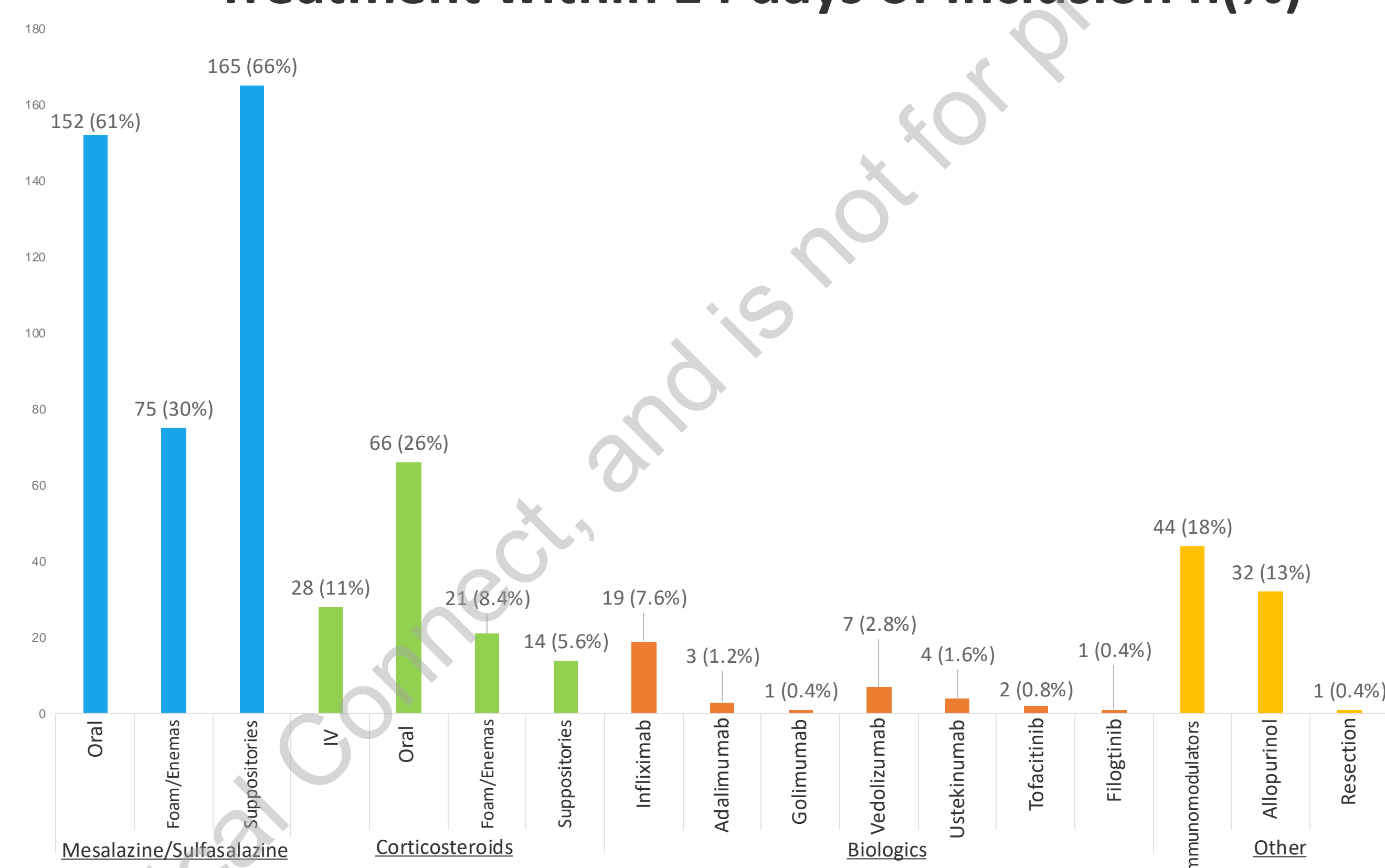


Table 1: Multivariate logistic regression model of predictors associated with disease remission

	Multivariate OR (95% CI)	P value
Age	0.93 (0.90-0.97)	0.0010
Disease duration	1.10 (1.02-1.20)	0.022
Mayo Endoscopic Score:		
1 = Mild	1.00	
2 = Moderate	3.48 (1.06-12.92)	0.048
3 = Severe	0.39 (0.081-1.79)	0.22
Total IBD-DI	0.93 (0.88-0.98)	0.011
Faecal calprotectin:		
Calprotectin ≤ 250	1.00	
250 < Calprotectin ≤ 500	2.34 (0.31-24.33)	0.43
Calprotectin > 500	4.18 (1.42-13.25)	0.01
C-reactive protein (CRP)	0.98 (0.95-1.00)	0.16
Haemoglobin	2.03 (1.04-4.50)	0.056
Iron	0.93 (0.85-1.01)	0.10

Conclusion:

Older age and higher disability scores significantly reduced the likelihood of remission for UC patients. However, longer disease duration, moderate disease activity, and high calprotectin increased the likelihood likely due to increased use of corticosteroids and biologics in these cases.

Conflicts of Interest:

- RB, IA, HN, IW, SH, BT, KM, IV, FB: none
- RN: travel and congress fees from Pfizer.
- BL: research grant from Janssen Cilag A/S, BETA.HEALTH, The Danish Innovation Fund; consultancy fee from Tillotts Pharma AB, Bristol Myers Squibb; travel support from Tillotts Pharma AB, Pharmacosmos A/S; speaker fee from Tillotts Pharma AB, Johnson and Johnson.
- JB: reports grants and personal fees from AbbVie, grants and personal fees from Janssen-Cilag, personal fees from Celgene, grants and personal fees from MSD, personal fees from Pfizer, grants and personal fees from Takeda, grants and personal fees from Tillotts Pharma, personal fees from Samsung Bioepis, grants, and personal fees from Bristol Myers Squibb, grants from Novo Nordisk, personal fees from Pharmacosmos, personal fees from Ferring, personal fees from Galapagos, outside the submitted work.

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