

Malnutrition During Hospitalisation for Acute Severe IBD is Associated with Increased Risk of Relapse

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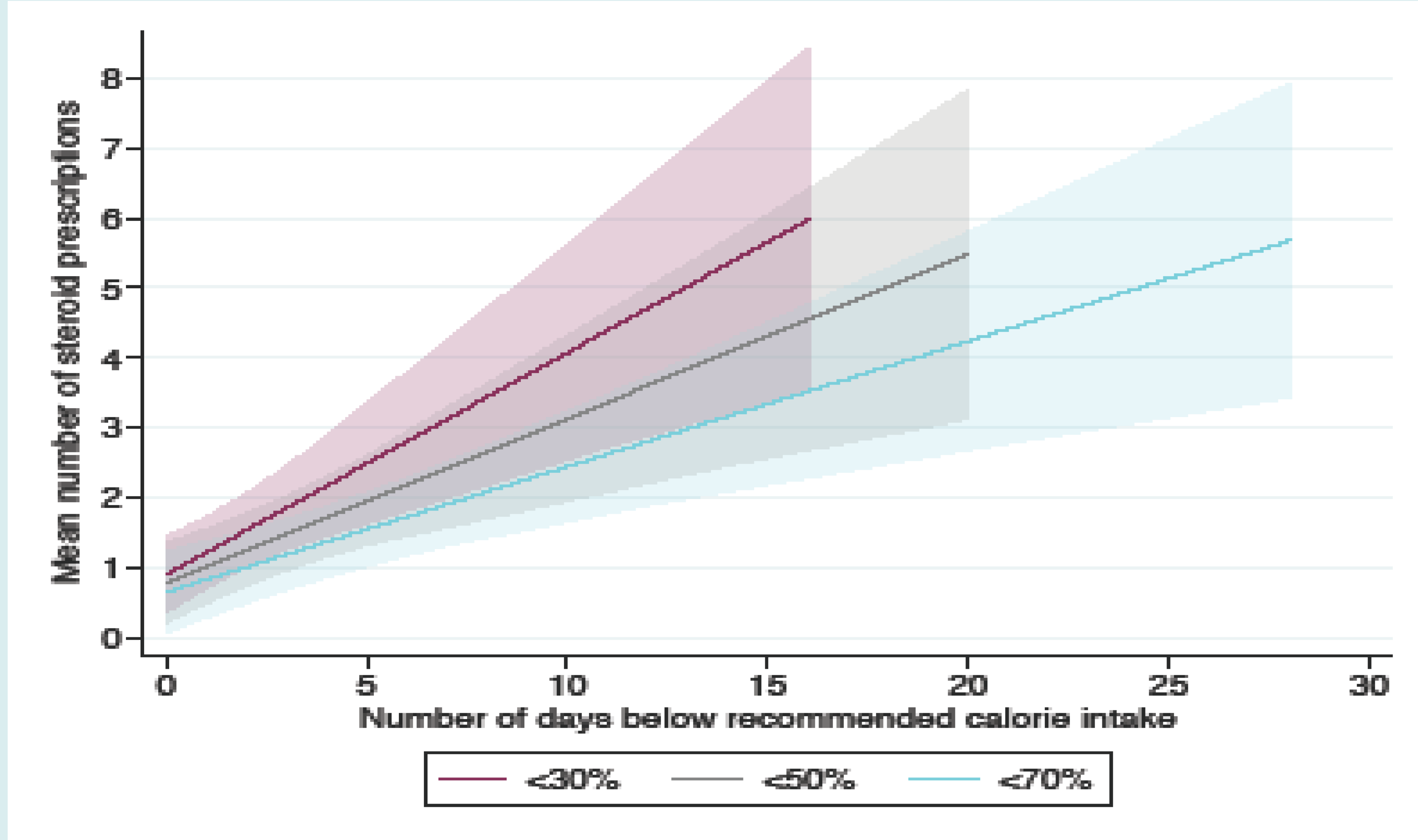


Figure 1. Association between the number of days with suboptimal energy intake and the need of steroid prescriptions during the follow-up year: note the dose-response relation with increasing energy deficiency.

Conclusions

Days with suboptimal calorie intake during hospitalisation for IBD flare are associated with steroid-requiring relapse in the subsequent year.

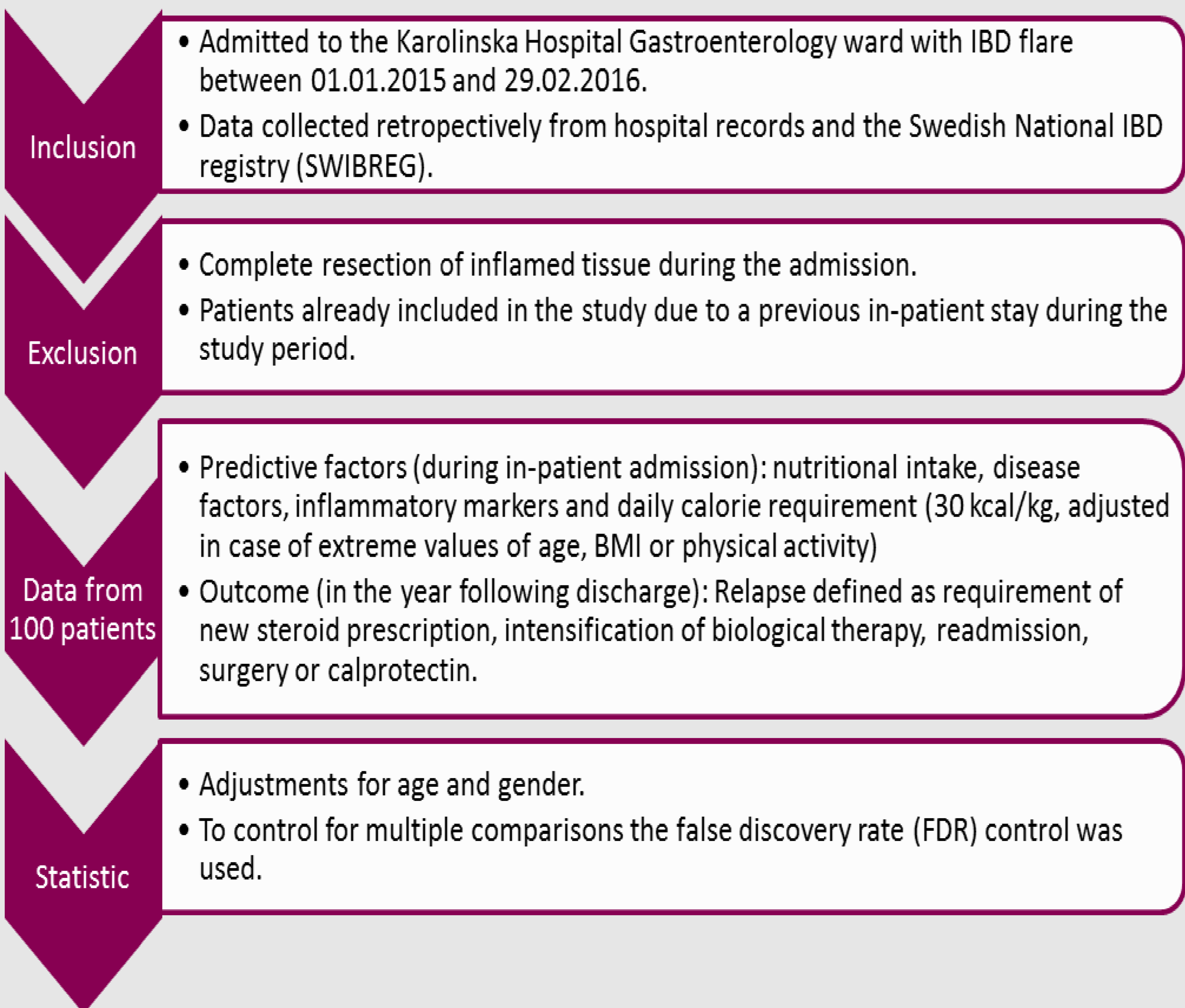
We speculate that suboptimal nutrition may adversely affect attainment of durable remission by impeding either epithelial cell regeneration or microbial restitution.

The association between readmission and immunosuppressant use and weight gain during the admission, may be a marker of disease severity and be caused by low serum albumin leading to oedema, respectively.

Background

Current data suggest that malnutrition during IBD flare predicts in-hospital mortality, surgery and admission duration. However, longer-term effects of nutrition during IBD flare are unknown. We hypothesised that nutritional factors during hospitalisation for acute severe IBD are associated with higher risk of relapse of inflammation in the year following discharge.

Methods



Results

The No. of days with sub-optimal calorie intake during the in-patient period was associated with the no. of steroid prescriptions in the follow-up year (Figure 1, Table 1).

Overall, 23, 50 and 74%, of patients had calorie intake <30, <50 and <70% of calculated need. Markers of inflammation severity (CRP, calprotectin and stool frequency on admission) were not associated with subsequent relapse

A rise in weight/BMI during the inpatient period and ongoing immunosuppressive treatment at admission were associated with subsequent readmission (Table 1)
No other predictors were associated with relapse.

Predictor	Outcome	Q-value	P-value
Nr of days <30%	Number of steroid prescriptions	0,0760	<0,001
Nr of days <50%		0,0738	<0,001
Nr of days <70%		0,119	<0,001
Weight gain	Number of readmissions	0,000771	<0,001
Raise in BMI		0,0230	<0,001
Immunosuppression at admission		0,112	<0,001

Table 1. List of all predictors (during admission) that were found to be significantly associated with the outcome (relapse in the year following discharge). Q-values indicate the level of FDR. Hence, a total of 6 discoveries with significance ≤ 0.05 with acceptance of 12% FDR were found.

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