Supplementary Figure 1. Numerical rating scale used by patients to assess gastrointestinal (GI) events. For the Modified Overall Gastrointestinal Symptom Scale, patients assessed global GI events (defined as one or more of the following symptoms: nausea, diarrhea, upper abdominal pain, lower abdominal pain, vomiting, indigestion, constipation, bloating, and flatulence) experienced during the 24 hours before each morning dose of delayed-release dimethyl fumarate (DMF). For the Modified Acute Gastrointestinal Symptom Scale, patients assessed individual acute GI-related symptoms (nausea, diarrhea, upper abdominal pain, lower abdominal pain, vomiting, indigestion, constipation, bloating, and flatulence) experienced during the 10 hours after each morning and evening dose of DMF.
Supplementary Figure 2. Mean severity scores for overall gastrointestinal (GI) events (assessed by the Modified Overall Gastrointestinal Symptom Scale [MOGISS]) over time in patients who took antacids (A), bismuth subsalicylate (B), acid-secretion blockers (proton pump inhibitors [PPIs] and histamine type 2 receptor [H2] blockers) (C), antibloating/anticonstipation agents (D),
antidiarrheals (antiperistaltic agents) (E), and centrally acting antiemetics (F). The dotted lines indicate the day of symptomatic treatment initiation. Patient numbers indicate the number of patients taking the symptomatic therapy on the indicated days. Severity was rated on a 10-point numerical rating scale, where 0 = no events, 1 to 3 = mild events, 4 to 6 = moderate events, 7 to 9 = severe events, and 10 = extreme events.
Supplementary Figure 3

A. Antidepressants

B. Antiepileptic drugs

C. Anti-emetic drugs

D. Olfactory sensors

E. Antipsychotics

F. Cerebrospinal fluid samples

G. Anti-seizure blockers (PTPs and H2 blockers)

H. Anti-stomach/vomiting agents

I. Cerebrospinal fluid samples

J. Olfactory sensors

K. Antiepileptic drugs

L. Antidepressants

M. Anti-emetic drugs

N. Oral contraceptives

O. Cerebrospinal fluid samples

P. Anti-seizure blockers (PTPs and H2 blockers)
**Supplementary Figure 3.** Daily mean severity scores (Modified Acute Gastrointestinal Symptom Scale [MAGISS]) for nausea in patients who took antacids (A), bismuth subsalicylate (B), acid-secretion blockers (proton pump inhibitors [PPIs] and histamine type 2 receptor [H2] blockers) (C), antibloating/anticonstipation agents (D), antidiarrheals (antiperistaltic agents) (E), and centrally acting antiemetics (F). The dotted lines indicate the day of symptomatic treatment initiation. Patient numbers indicate the number of patients taking the symptomatic therapy on the indicated days. Severity was rated on a 10-point numerical rating scale, where 0 = no events, 1 to 3 = mild events, 4 to 6 = moderate events, 7 to 9 = severe events, and 10 = extreme events. GI, gastrointestinal.
Supplementary Figure 4. Daily mean severity scores (Modified Acute Gastrointestinal Symptom Scale [MAGISS]) for diarrhea in patients who took antacids (A), bismuth subsalicylate (B), acid-secretion blockers (proton pump inhibitors [PPIs] and histamine type 2 receptor [H2]...
blockers) (C), antibloating/anticonstipation agents (D), antidiarrheals (antiperistaltic agents) (E), and centrally acting antiemetics (F). The dotted lines indicate the day of symptomatic treatment initiation. Patient numbers indicate the number of patients taking the symptomatic therapy on the indicated days. Severity was rated on a 10-point numerical rating scale, where 0 = no events, 1 to 3 = mild events, 4 to 6 = moderate events, 7 to 9 = severe events, and 10 = extreme events. GI, gastrointestinal.
Supplementary Figure 5. Daily mean severity scores (Modified Acute Gastrointestinal Symptom Scale [MAGISS]) for upper abdominal pain in patients who took antacids (A), bismuth subsalicylate (B), acid-secretion blockers (proton pump inhibitors [PPIs] and histamine type 2
receptor [H2] blockers) (C), antibloating/anticonstipation agents (D), antidiarrheals (antiperistaltic agents) (E), and centrally acting antiemetics (F). The dotted lines indicate the day of symptomatic treatment initiation. Patient numbers indicate the number of patients taking the symptomatic therapy on the indicated days. Severity was rated on a 10-point numerical rating scale, where 0 = no events, 1 to 3 = mild events, 4 to 6 = moderate events, 7 to 9 = severe events, and 10 = extreme events. GI, gastrointestinal.
Supplementary Figure 6. Daily mean severity scores (Modified Acute Gastrointestinal Symptom Scale [MAGISS]) for lower abdominal pain in patients who took antacids (A), bismuth
subsalicylate (B), acid-secretion blockers (proton pump inhibitors [PPIs] and histamine type 2 receptor [H2] blockers) (C), antibloating/anticonstipation agents (D), antidiarrheals (antiperistaltic agents) (E), and centrally acting antiemetics (F). The dotted lines indicate the day of symptomatic treatment initiation. Patient numbers indicate the number of patients taking the symptomatic therapy on the indicated days. Severity was rated on a 10-point numerical rating scale, where 0 = no events, 1 to 3 = mild events, 4 to 6 = moderate events, 7 to 9 = severe events, and 10 = extreme events. GI, gastrointestinal.
Supplementary Figure 7. Daily mean severity scores (Modified Acute Gastrointestinal Symptom Scale [MAGISS]) for vomiting in patients who took antacids (A), bismuth subsalicylate (B), acid-secretion blockers (proton pump inhibitors [PPIs] and histamine type 2...
receptor [H2] blockers) (C), antibloating/anticonstipation agents (D), antidiarrheals (antiperistaltic agents) (E), and centrally acting antiemetics (F). The dotted lines indicate the day of symptomatic treatment initiation. Patient numbers indicate the number of patients taking the symptomatic therapy on the indicated days. Severity was rated on a 10-point numerical rating scale, where 0 = no events, 1 to 3 = mild events, 4 to 6 = moderate events, 7 to 9 = severe events, and 10 = extreme events. GI, gastrointestinal.
**Supplementary Figure 8.** Distribution of the worst severity scores for overall gastrointestinal events (assessed by the Modified Overall Gastrointestinal Symptom Scale) in patients who regularly took delayed-release dimethyl fumarate (DMF) with a meal and patients who did not regularly take DMF with a meal. Severity was rated on a 10-point numerical rating scale, where 0 = no events, 1 to 3 = mild events, 4 to 6 = moderate events, 7 to 9 = severe events, and 10 = extreme events.