



Supplementary Figure 1. Selection of Patients At-Risk for MASH

<sup>a</sup> A diagnosis of type 2 diabetes, hypertension, hyperlipidemia, and/or metabolic syndrome

Supplementary Table 1. Liver and Diabetes-Related Laboratory Measurements in Baseline and Follow-Up

	Any SC Semaglutide	SC Semaglutide 2.4 mg
	N = 6,537	N = 358
Liver-related lab results		
Had ≥1 FIB-4 during baseline, N (%)	545 (8.3)	28 (7.8)
Baseline FIB-4, median (IQR)	1.0 (0.71, 1.53)	0.9 (0.6, 1.27)
Also had ≥1 FIB-4 during follow-up, N (%)	346 (63.5)	17 (60.7)
Follow-up FIB-4, median (IQR)	1.0 (0.66, 1.37)	0.8 (0.56, 1.07)
Had ≥1 APRI during baseline, N (%)	565 (8.6)	29 (8.1)
Baseline APRI, median (IQR)	0.3 (0.2, 0.51)	0.3 (0.19, 0.56)
Also had ≥1 APRI during follow-up, N (%)	358 (63.4)	19 (65.5)
Follow-up APRI, median (IQR)	0.2 (0.17, 0.36)	0.2 (0.14, 0.35)
Had ≥1 NFS during baseline, N (%)	462 (7.1)	26 (7.3)
Baseline NFS, median (IQR)	-0.8 (-1.58, 0.14)	-1.8 (-2.64, 0.29)
Also had ≥1 NFS during follow-up, N (%)	280 (60.6)	14 (53.9)
Follow-up NFS, median (IQR)	-0.8 (-1.66, 0.05)	-2.0 (-2.43, 0.79)
Had ≥1 ALT during baseline, N (%)	790 (12.1)	42 (11.7)
Baseline ALT, median (IQR)	40.0 (26, 63)	40.0 (23, 66)
Also had ≥1 ALT during follow-up, N (%)	562 (71.1)	25 (59.5)
Follow-up ALT, median (IQR)	30.0 (21, 44)	26.0 (18, 48)
Diabetes-related lab results		
Had ≥1 HbA1c, N (%)	758 (11.6)	26 (7.3)
HbA1c, median (IQR)	7.3 (6.2, 8.6)	5.6 (5, 5.8)
Also had ≥1 HbA1c during follow-up, N (%)	570 (75.2)	15 (57.7)
Follow-up HbA1c, median (IQR)	6.5 (5.9, 7.6)	5.3 (5, 5.5)

ALT, alanine aminotransferase; APRI, aspartate transaminase-to-platelet ratio index; FIB-4, fibrosis-4; HbA1c, hemaglobin A1C; IQR, interquartile range; NFS, nonalcoholic fatty liver disease fibrosis score; SC, subcutaneous

Supplementary Table 2. Study Results Among Adults At-Risk for MASH Prescribed SC Semaglutide 2.4 mg

	At-Risk
	N = 20,454
Age, mean (SD)	48.3 (10.1)
Female, n (%)	16,064 (78.5)
Race, n (%)	
Asian	399 (2.0)
African American/Black	1,845 (9.0)
Other	2,050 (10.0)
White	12,087 (59.1)
Unknown	4,073 (19.9)
Geographic Region, n (%)	
North East	3,899 (19.1)
Midwest	4,028 (19.7)
South	9,989 (48.8)
West	2,183 (10.7)
Year of Index, n (%)	
2021	7,161 (35.0)
2022	8,009 (39.2)
2023	5,284 (25.8)
Clinical Conditions, n (%)	
Type 2 diabetes	1,619 (7.9)
Obesity	17,376 (85.0)
Hyperlipidemia	9,363 (45.8)
≥1 BMI documented in both baseline and follow-up (N,%)	4,468 (21.8)
Baseline BMI	
Mean (SD)	35.7 (4.2)
Median (IQR)	36.3 (32.4–40)
Weeks from baseline BMI to index, mean (SD)	11.7 (13.4)
Follow-up BMI	
Mean (SD)	33.8 (5.3)
Median (IQR)	34.0 (29.8–39.7)
Weeks from index to follow-up BMI, mean (SD)	49.5 (19.9)
Liver-related lab results	
Had ≥1 FIB-4 during baseline, N (%)	1,595 (7.8)
Baseline FIB-4, median (IQR)	0.8 (0.55, 1.00)
Also had ≥1 FIB-4 during follow-up, N (%)	924 (57.9)
Follow-up FIB-4, median (IQR)	0.8 (0.57, 1.00)
Had ≥1 APRI during baseline, N (%)	1,620 (7.9)
Baseline APRI, median (IQR)	0.2 (0.13, 0.25)
Also had ≥1 APRI during follow-up, N (%)	943 (58.2)
Follow-up APRI, median (IQR)	0.2 (0.13, 0.24)

Had $\geq 1$ NFS during baseline, N (%)	1,366 (6.7)
Baseline NFS, median (IQR)	-1.8 (-2.64, -1.08)
Also had $\geq 1$ NFS during follow-up, N (%)	762 (55.8)
Follow-up NFS, median (IQR)	-1.9 (-2.77, -1.15)
Had $\geq 1$ ALT during baseline, N (%)	2,078 (10.2)
Baseline ALT, median (IQR)	21 (15, 30)
Also had $\geq 1$ ALT during follow-up, N (%)	1,322 (63.6)
Follow-up ALT, median (IQR)	19 (14, 28)
Diabetes-related lab results	
Had $\geq 1$ HbA1c, N (%)	1,435 (7.0)
HbA1c, median (IQR)	5.6 (5.2, 6)
Also had $\geq 1$ HbA1c during follow-up, N (%)	763 (53.2)
Follow-up HbA1c, median (IQR)	5.4 (5.1, 5.9)
Overall treatment patterns	
Non-persistent on any dosage, N (%)	16,081 (78.6)
Weeks to non-persistence, mean (SD)	19.7 (16.9)
Restarted any dosage, N (%)	5,759 (35.8)
Weeks to restart, mean (SD)	18.7 (15.5)
Semaglutide 2.4 mg/week dosage, any time during follow-up, n (%)	10,519 (51.4)
Weeks to reach 2.4 mg/week dosage, mean (SD)	18.5 (13.8)
Weeks on 2.4 mg/week dosage, mean (SD)	30.5 (21.2)
Sustained on 2.4 mg/week dosage for $\geq 56$ weeks, n (%)	1,731 (16.5)
Non-persistent on 2.4 mg/week dosage, n (%)	6,309 (60.0)
Weeks to non-persistence on 2.4 mg/week, mean (SD)	18.6 (14.4)
Restarted 2.4 mg/week dosage, n (%)	1,982 (31.4)
Weeks to restart of 2.4 mg/week, mean (SD)	13.7 (10.0)
Semaglutide 2.4 mg/week dosage within 16 weeks of index, n (%)	5,140 (25.1)
Weeks to reach 2.4 mg/week dosage, mean (SD)	9.0 (5.7)
Weeks on 2.4 mg/week dosage, mean (SD)	33.2 (23.6)
Sustained on 2.4 mg/week dosage for $\geq 56$ weeks, n (%)	1,731 (33.7)
Non-persistent on 2.4 mg/week dosage, n (%)	3,499 (68.1)
Weeks to non-persistence on 2.4 mg/week, mean (SD)	19.9 (15.9)
Restarted 2.4 mg/week dosage, n (%)	1,230 (35.2)
Weeks to restart of 2.4 mg/week, mean (SD)	14.1 (10.7)

ALT, alanine aminotransferase; APRI, aspartate transaminase-to-platelet ratio index; BMI, body mass index; FIB-4, fibrosis-4; HbA1c, hemaglobin A1C; IQR, interquartile range; NFS, nonalcoholic fatty liver disease fibrosis score; SC, subcutaneous; SD, standard deviation