Glycemic Outcomes With CGM Use In Patients With Type 2 Diabetes

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Disclosure Information: Richard M. Bergenstal, MD

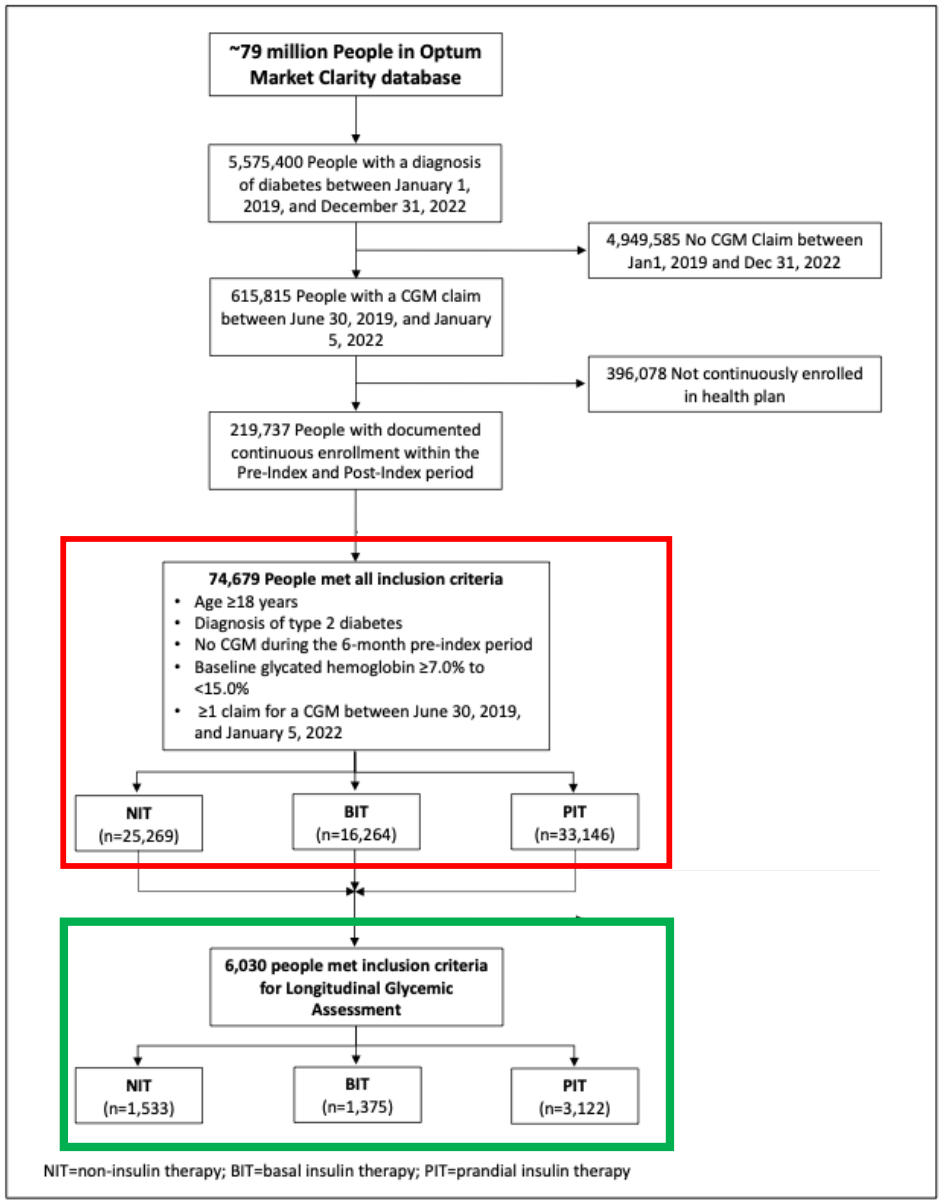
- I have no personal financial disclosures
- My employer, the non-profit HealthPartners Institute, contracts for my services, and I receive no personal income from the following activities:

  I have participated in clinical research, been a member of a scientific advisory board, and served as a consultant for:

  - Abbott Diabetes Care, Ascensia, Bigfoot Biomedical, Inc., CeQur, Dexcom, Eli Lilly, Embecta, Hygieia, Insulet, Medtronic, NCQA, Novo Nordisk, Onduo, Roche Diabetes Care, Sanofi and United Healthcare, Vertex Pharmaceuticals and Zealand Pharma

  - My institution receives NIH/NIDDK and PCORI funding

Change in Glycemic Control: Subgroup Analysis



6,030 CGM users with T2D met all inclusion criteria for subgroup analysis:

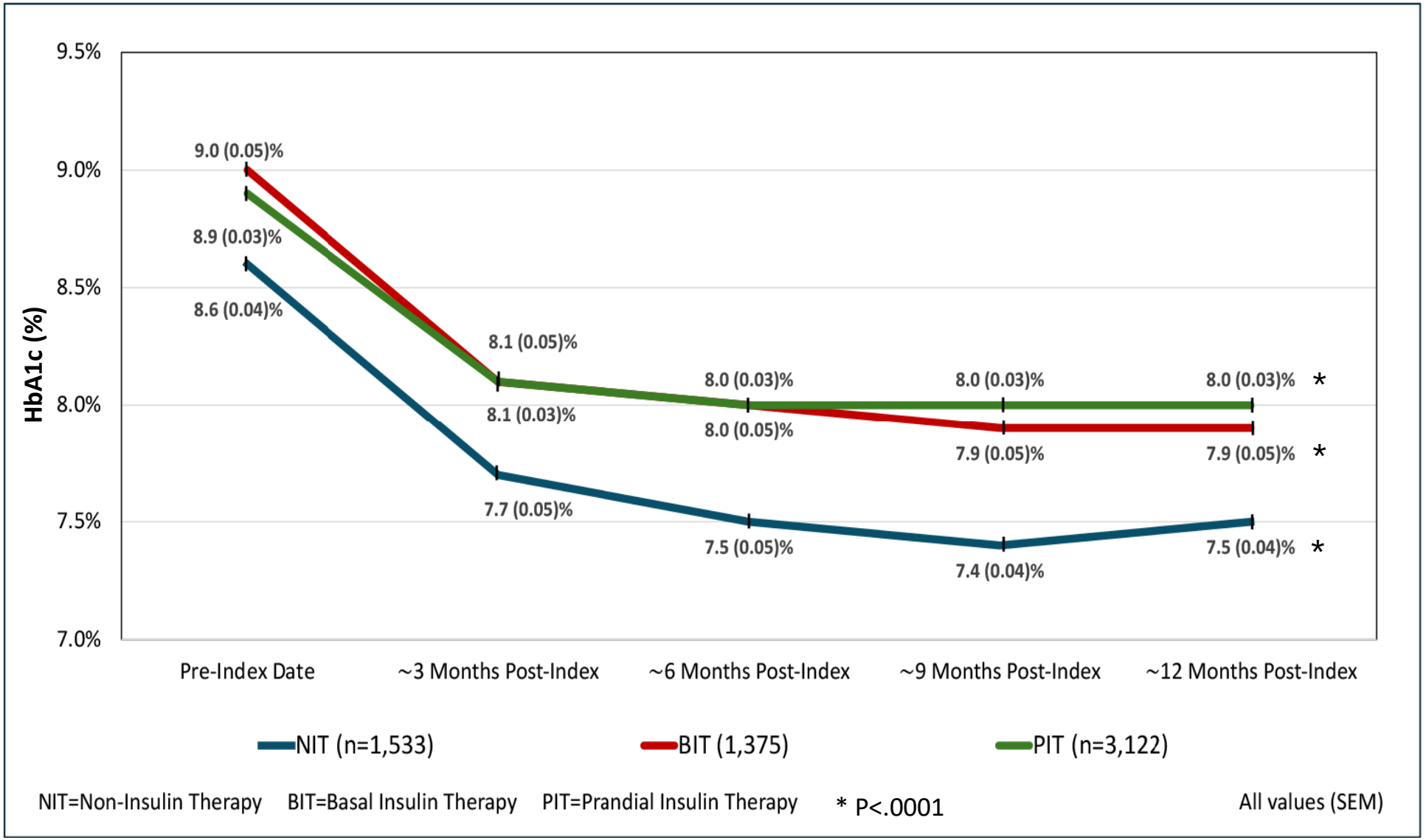
- ≥ 1 HbA1c value in their pre-period,
- and ≥ 1 HbA1c value in the 6- month to 12-month post-index period.

Baseline Characteristics

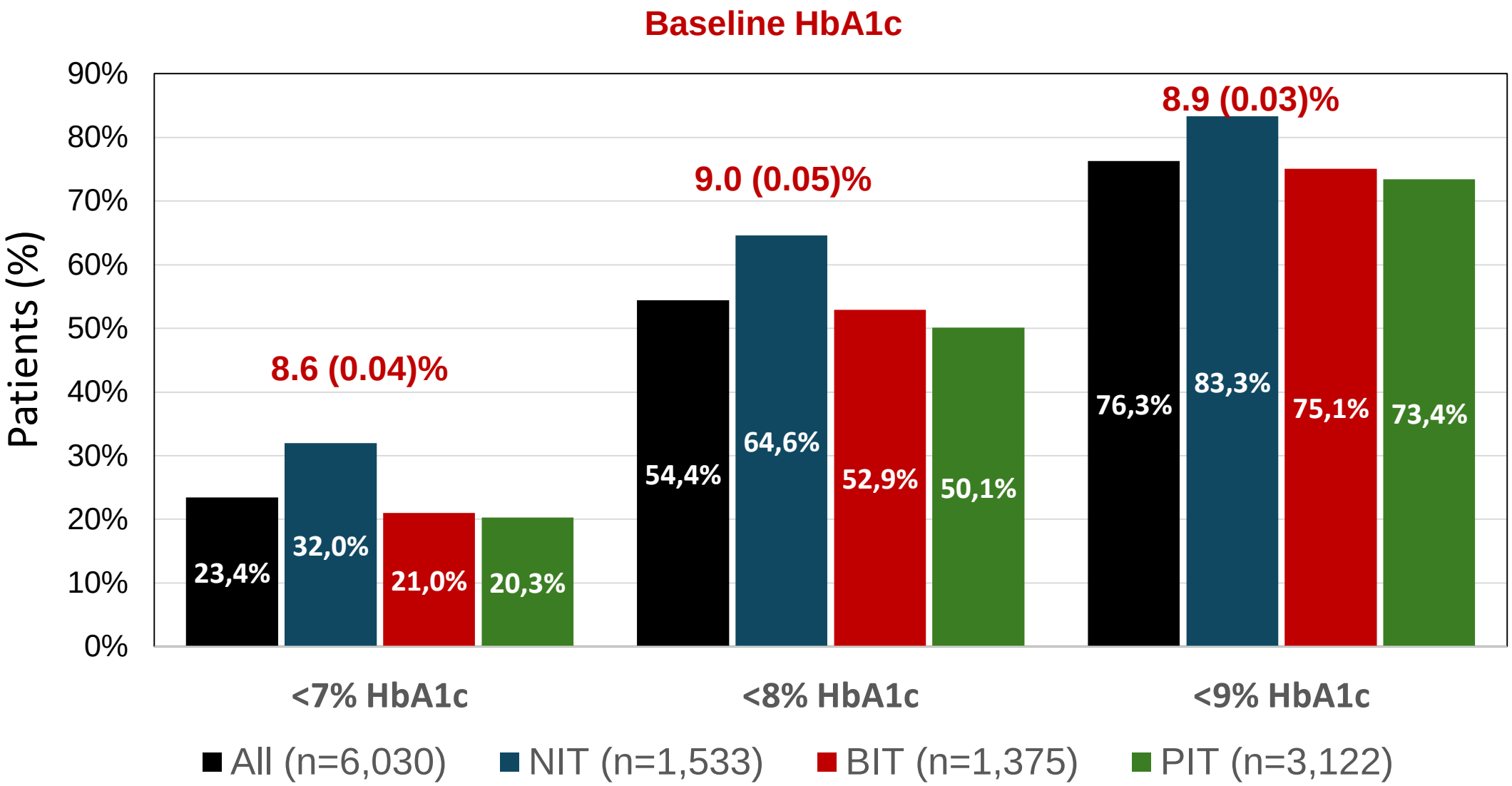
Characteristic	NIT (n=1,533)	BIT (n=1,375)	PIT (n=3,122)
Index Age -- yr (SD)	57.2 (11.9)	59.6 (11.7)	61.0 (12.2)
Female sex -- n, (%)	698 (45.5)	665 (48.4)	1,612 (51.6)
HbA1c -- % (SEM)	8.6 (0.04)	9.0 (0.05)	8.9 (0.03)
Race -- n, (%)			
Asian	56 (3.7)	30 (2.2)	55 (1.8)
Black	222 (14.5)	204 (14.8)	489 (15.7)
White	1,070 (69.8)	958 (69.7)	2,151 (68.9)
Unknown	185 (12.1)	183 (13.3)	427 (13.7)
Ethnic group -- n, (%)			
Hispanic	96 (6.3)	112 (8.1)	259 (8.3)
Non-Hispanic	1,171 (76.4)	1,055 (76.7)	2,396 (76.7)
Unknown	266 (17.4)	208 (15.1)	457 (14.6)
Medications-- n, (%)			
MET, n (%)	1,083 (70.6)	770 (56.0)	1327 (42.5)
SUL, n (%)	615 (40.1)	413 (30.0)	443 (14.2)
TZD, n (%)	111 (7.2)	89 (6.5)	122 (3.9)
DPP-4i, n (%)	277 (18.1)	193 (14.0)	259 (8.3)
GLP-1 RA, n (%)	509 (33.2)	526 (38.3)	967 (31.0)
SGLT-2i, n (%)	484 (31.6)	378 (27,5)	551 (17.6)
Basal Insulin, n (%)	0 (0.0)	1,375 (100.0)	2,647 (84.8)
Prandial Insulin, n (%)	0 (0.0)	0 (0.0)	3,122 (100.0)

MET=metformin; SUL=sulfonylurea; TZD=thiazolidinedione; DPP-4i=dipeptidyl peptidase 4 inhibitor; GLP-1 RA=glucagon-like peptide receptor agonist; SGLT-2i=sodium-glucose transport protein 2 inhibitor.

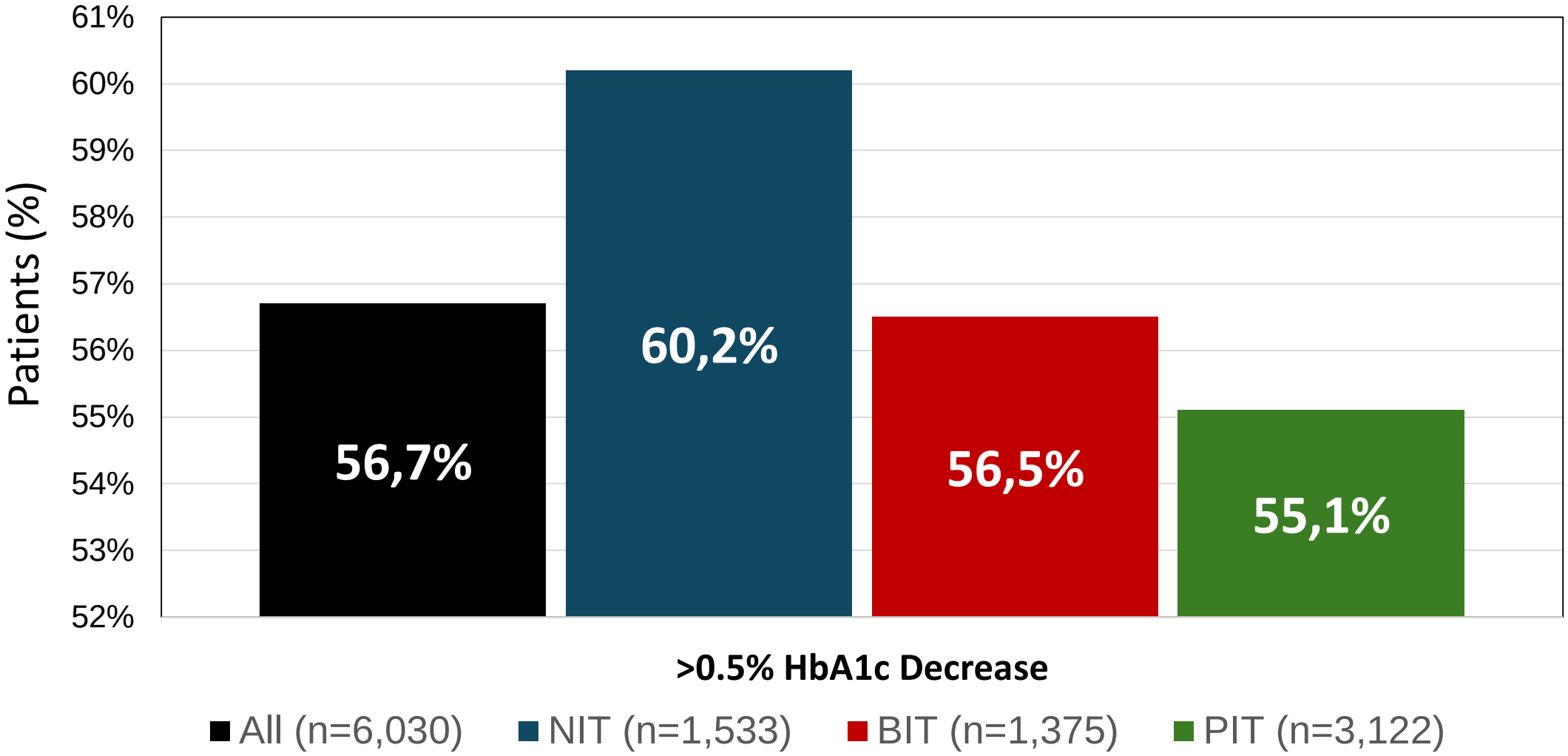
Significant and Sustained Glycemic Control Over 12 Months



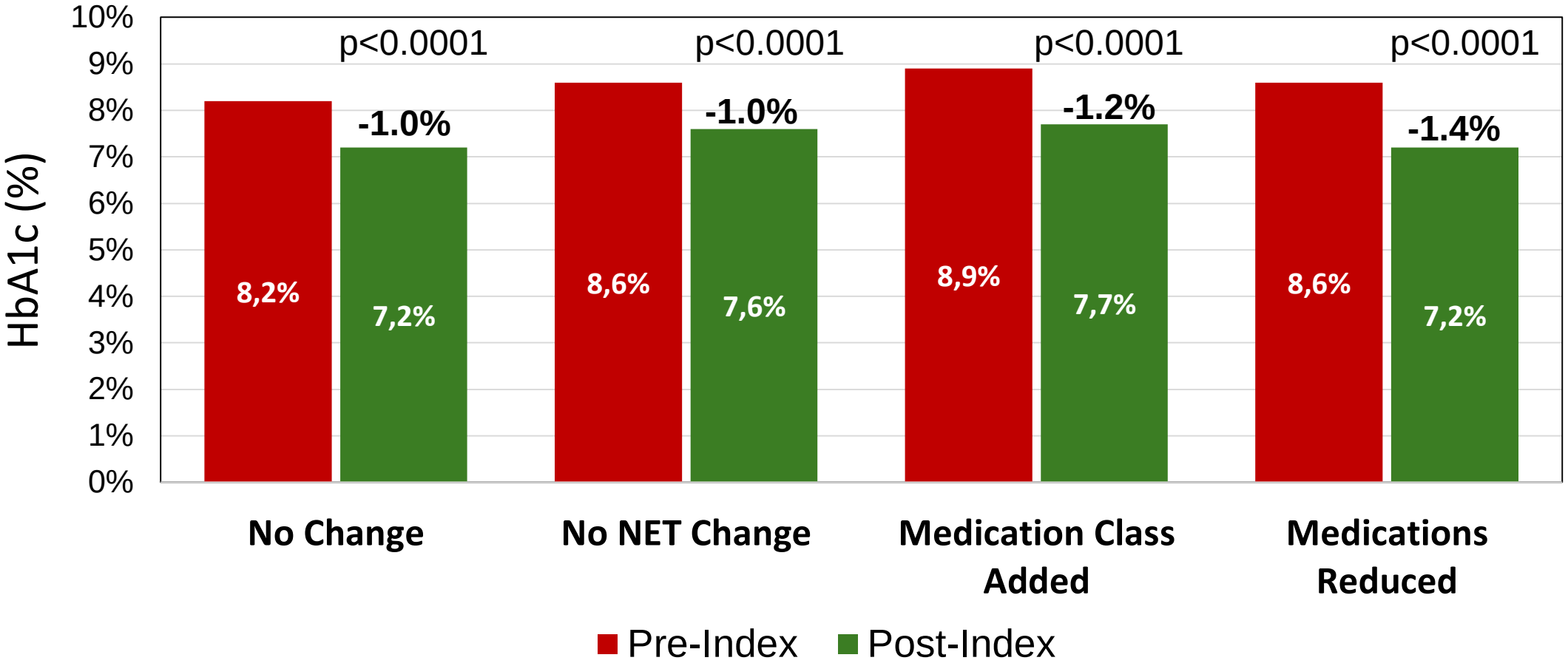
Patients Who Achieved Specified HbA1c Levels



Patients With >0.5% HbA1c Decrease

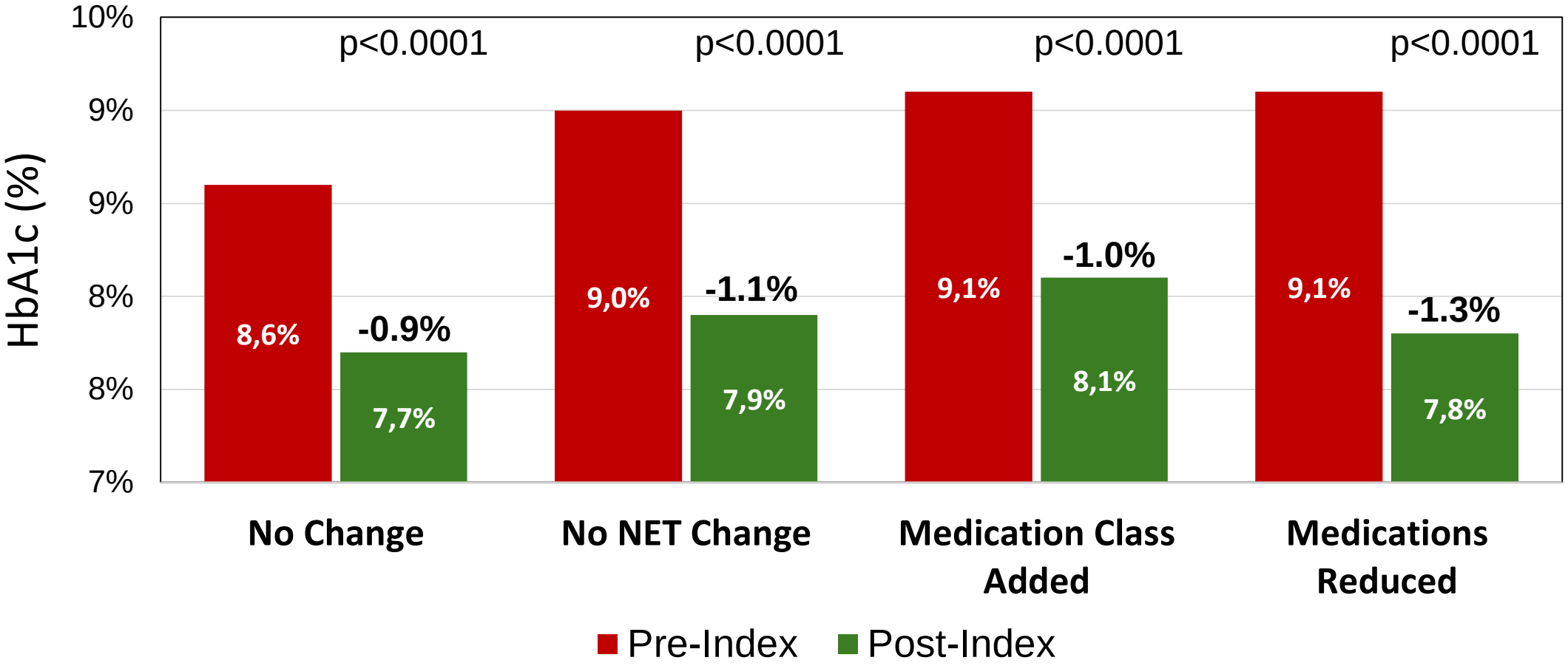


Medication Changes: NIT Subgroup Cohort



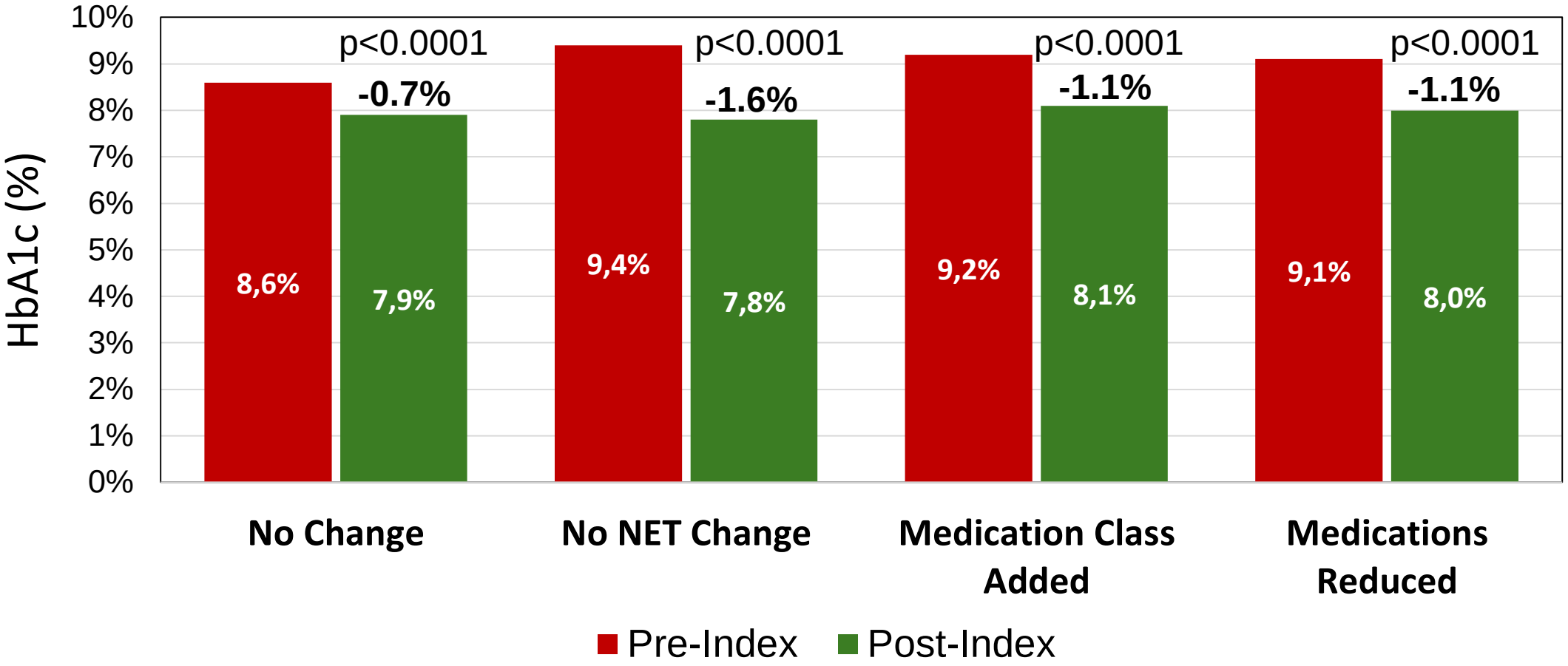
Net Zero Change - indicates equal number of medication classes were added and discontinued, not including the "No Change"; Medication Class Added -- indicates ≥1 medication class added; Medications Reduced -- indicates ≥1 medication class discontinued. All data are reported as mean ±SEM.

Medication Changes: BIT Subgroup Cohort



Net Zero Change - indicates equal number of medication classes were added and discontinued, not including the "No Change"; Medication Class Added -- indicates ≥1 medication class added; Medications Reduced -- indicates ≥1 medication class discontinued. All data are reported as mean ±SEM.

Medication Changes: PIT Subgroup Cohort



Net Zero Change - indicates equal number of medication classes were added and discontinued, not including the "No Change"; Medication Class Added -- indicates ≥1 medication class added; Medications Reduced -- indicates ≥1 medication class discontinued. All data are reported as mean ±SEM.

Conclusions

Use of CGM is associated with significant and sustained glycemic improvement in people with T2D regardless of:

- ***Insulin regimen***
  - ***Non-insulin therapy***
  - ***Basal-insulin therapy***
  - ***Prandial-insulin therapy***
- ***Medication adjustments***

Garg SK, Hirsch IB, Repetto E, Snell-Bergeon J, Ulmer B, Perkins C, Bergenstal RM.
Impact of Continuous Glucose Monitoring on Hospitalizations and Glucose Control in People with Type 2 Diabetes: Real-World Analysis
Diabetes Obesity and Metabolism: Online September 12, 2024