Supplemental Table 1. Clinician Survey Guideline Attitude and Knowledge Questions

A.	**General Clinical Practice Guideline Attitude Questions (Responses: Strongly disagree/Somewhat disagree/Neither disagree nor agree/Somewhat agree/Strongly agree/Declined to answer)**
a.	CPGs standardize care and assure that patients are treated in a consistent way
b.	Health care providers today are increasingly pressured to follow CPGs for reasons beyond disease mitigation (e.g., performance-based pay)
c.	The number of CPGs and assessment tools creates confusion when it comes to determining proper treatment for patients
d.	Properly following CPGs can have a significant effect on patient morbidity and mortality (i.e., reduce patient morbidity and mortality)
e.	CPGs are not meant to be a replacement for my clinical judgment
f.	CPGs are evidence based
g.	CPGs reduce clinicians' autonomy (a so-called cookbook)
h.	There is no need for CPGs because treatment routines/pathways exist
i.	CPGs are hard to implement in daily practice
j.	CPGs are useful at various stages of diseases, such as for confirming diagnosis, starting initial treatment, and managing complications
k.	CPGs are good educational tools
l.	CPGs are likely to decrease malpractice lawsuits
m.	CPGs are an unbiased synthesis of expert opinion
n.	CPGs are too rigid to apply to individual patients
o.	CPGs are developed by experts who understand little of daily clinical routine
B.	**ADA Clinical Practice Guideline Attitude Questions (asked of clinicians who indicated at least a little knowledge of them) (Responses: Strongly disagree/Somewhat disagree/Neither disagree nor agree/Somewhat agree/Strongly agree/Not sure/Declined to answer)**
a.	The ADA CPGs standardize care and assure that patients are treated in a consistent way
b.	Properly following the ADA CPGs can impact future multimorbidity (e.g., cardiovascular, and renal)
c.	Properly following the ADA CPGs can have a significant impact on mortality reduction
d.	The ADA CPGs reduce clinicians' autonomy (i.e. - a so-called cookbook)
e.	The ADA CPGs are difficult to implement in daily practice
f.	The ADA CPGs improve the quality of patient care

g.	The ADA CPGs clearly specify that appropriate patients with T2D and an indicator of high-risk or established ASCVD, heart failure and/or CKD may be prescribed a SGLT2i or GLP-1 RA with proven cardiovascular benefit independently of baseline A1c, individualized A1c target or metformin use

C. Guideline Knowledge Questions

GK1.	Mr. AB is a 59-year-old male with a 3-year history of T2D. He is currently taking metformin 1000mg BID. His past medical history is significant for hypertension, dyslipidemia, and a myocardial infarction last year. His current HbA1c is 7.9% and you have set an individualized HbA1c target of 7.0% for him. He has good prescription coverage and is adherent taking his medications. a. Which treatment option would you most likely select for Mr. AB in this scenario? (**Responses:** Add basal insulin/Add DPP-4i/Add GLP-1 RA/Add SGLT2i/Add sulfonylurea/Make no change in T2D therapy/Declined to answer) b. Instead of a myocardial infarction last year, Mr. AB is diagnosed with heart failure. Which treatment option would you most likely select in this scenario? (**Responses:** Add basal insulin/Add DPP-4i/Add GLP-1 RA/Add SGLT2i/Add sulfonylurea/Make no change in T2D therapy/Declined to answer) c. Instead of a myocardial infarction last year, Mr. AB is diagnosed with chronic kidney disease (CKD). Which treatment option would you most likely select in this scenario? (**Responses:** Add basal insulin/Add DPP-4i/Add GLP-1 RA/Add SGLT2i/Add sulfonylurea/Make no change in T2D therapy/Declined to answer)
GK2.	Mrs. AT is a 64-year-old female with a 5-year history of well controlled T2D (current HbA1c = 6.8%) on metformin 1000mg BID. She has no problems with hypoglycemia and has good prescription coverage. At her office visit today, it was determined that her CV risk has increased over the past year (10-year ASCVD risk = 17%). Which treatment option would you most likely select for Mrs. AT? (**Responses:** Keep on metformin and glimepiride (no change)/Add DPP-4i/Add GLP-1 RA/Add SGLT2i/Switch metformin with DPP-4i/ Switch metformin with GLP-1 RA/ Switch metformin with SGLT2i/Declined to answer)
GK3.	In patients with T2D and established cardiovascular disease currently taking metformin and now requiring intensification of glucose-lowering therapy, adding a GLP-1 RA or SGLT2i is the preferred next step. (**Responses:** True/False/Declined to answer)
GK4.	Heart failure is the leading cause of morbidity and mortality for people with T2D. (**Responses:** True/False/Declined to answer)
GK5.	In individuals with T2D without cardiovascular or renal disease, insulin should mainly be considered only when other diabetes medications have not been successful in achieving HbA1c or been tolerated. (**Responses:** True/False/ Declined to answer)

GK6.	An HbA1c of <8% is the most appropriate goal for the majority of individuals with T2D. (**Responses:** True/False/Declined to answer)
GK7.	Which of the following antihyperglycemic medication classes is associated with weight loss in T2D? (**Responses:** DDP-4i/SGLT2i/Sulfonylureas/ Thiazolidinediones (TZDs)/Declined to answer)
GK8.	Which of the following statements is true regarding treatments in individuals with T2D? Select the one best response. (**Responses:** Statins are recommended for the majority of individuals aged 40 to 75 years/ Aspirin is recommended for the majority of individuals aged 40 to 75 years/ Statins plus fibrate combination therapy is generally recommended as it has been shown to improve ASCVD outcomes/ ACE-inhibitors should be discontinued in most patients with even minor increases in serum creatinine (<30%)/Declined to answer)
GK9.	CV risk factors include obesity/overweight, hypertension, dyslipidemia, smoking, a family history of premature coronary disease, chronic kidney disease and the presence of albuminuria. (**Responses:** True/False/Not sure/Declined to answer)

Supplemental Table 2. Guideline Knowledge by Clinician Type

	Primary Care Physician N=260	Endocrinologist N=44	Physician Assistant/ Nurse Practitioner N=98
GK1. Mr. AB is a 59-year-old male with a 3-year history of T2D, currently taking metformin 1000mg BID. His past medical history is significant for hypertension, dyslipidemia, and a myocardial infarction last year. His current HbA1c is 7.9% and you have set an individualized HbA1c target of 7.0% for him. He has good prescription coverage and is adherent taking his medications.			
a. Which option would you most likely select for Mr. AB in this scenario? n (%)			
Add basal insulin	5 (1.9%)	0 (0.0%)	0 (0.0%)
Add DPP-4i	11 (4.2%)	1 (2.3%)	4 (4.1%)
Add GLP-1 RA (Correct)	93 (35.8%)	24 (54.5%)	52 (53.1%)
Add SGLT2i (Correct)	138 (53.1%)	18 (40.9%)	39 (39.8%)
Add sulfonylurea	7 (2.7%)	0 (0.0%)	0 (0.0%)
Make no change in T2D therapy	5 (1.9%)	1 (2.3%)	2 (2.0%)
Declined to answer	1 (0.4%)	0 (0.0%)	1 (1.0%)
b. Instead of a myocardial infarction last year, Mr. AB is diagnosed with heart failure. Which option would you most likely select in this scenario? n (%)			
Add basal insulin	3 (1.2%)	0 (0.0%)	1 (1.0%)
Add DPP-4i	8 (3.1%)	2 (4.5%)	3 (3.1%)
Add GLP-1 RA	25 (9.6%)	4 (9.1%)	11 (11.2%)
Add SGLT2i (Correct)	212 (81.5%)	37 (84.1%)	78 (79.6%)
Add sulfonylurea	2 (0.8%)	0 (0.0%)	1 (1.0%)
Make no change in T2D therapy	9 (3.5%)	1 (2.3%)	3 (3.1%)
Declined to answer	1 (0.4%)	0 (0.0%)	1 (1.0%)
c. Instead of a myocardial infarction last year, Mr. AB is diagnosed with chronic kidney disease (CKD). Which option would you most likely select in this scenario? n (%)			
Add basal insulin	12 (4.6%)	0 (0.0%)	3 (3.1%)
Add DPP-4i	14 (54%)	1 (2.3%)	6 (6.1%)
Add GLP-1 RA	41 (15.8%)	3 (6.8%)	19 (19.4%)
Add SGLT2i (Correct)	178 (68.5%)	39 (88.6%)	66 (67.3%)
Add sulfonylurea	6 (2.3%)	0 (0.0%)	0 (0.0%)
Make no change in T2D therapy	8 (3.1%)	1 (2.3%)	3 (3.1%)
Declined to answer	1 (0.4%)	0 (0.0%)	1 (1.0%)

GK2. Mrs. AT is a 64-year-old female with a 5-year history of well controlled T2D (current HbA1c = 6.8%) on metformin 1000mg BID. She has no problems with hypoglycemia and has good prescription coverage. At her office visit today, it was determined that her CV risk has increased over the past year (10-year ASCVD risk = 17%). Which option would you most likely select for Mrs. AT? n (%)			
Keep patient on metformin and glimepiride (no change)	58 (22.3%)	1 (2.3%)	10 (10.2%)
Add DPP-4i	6 (2.3%)	0 (0.0%)	5 (5.1%)
Add GLP-1 RA (Correct)	48 (18.5%)	15 (34.1%)	25 (25.5%)
Add SGLT2i (Correct)	103 (39.6%)	20 (45.5%)	36 (36.7%)
Switch metformin with DPP-4i	4 (1.5%)	0 (0.0%)	2 (2.0%)
Switch metformin with GLP-1 RA	15 (5.8%)	6(13.6%)	8 (8.2%)
Switch metformin with SGLT2i	26 (10.0%)	2 (4.5%)	11 (11.2%)
Declined to answer	0 (0.0%)	0 (0.0%)	1 (1.0%)
GK3. In patients with T2D and established cardiovascular disease currently taking metformin and now requiring intensification of glucose-lowering therapy, adding a GLP-1 RA or SGLT2i is the preferred next step. n (%)			
True (Correct)	248 (95.4%)	44 (100.0%)	97 (99.0%)
False	12 (4.6%)	0 (0.0%)	1 (1.0%)
GK4. Heart failure is the leading cause of morbidity and mortality for people with T2D. n (%)			
True	150 (57.7%)	25 (56.8%)	57 (58.2%)
False (Correct)	110 (42.3%)	19 (43.2%)	41 (41.8%)
GK5. In individuals with T2D without cardiovascular or renal disease, insulin should mainly be considered only when other diabetes medications have not been successful in achieving HbA1c or been tolerated. n (%)			
True (Correct)	192 (73.8%)	35 (79.5%)	78 (79.6)
False	67 (25.8%)	9 (20.5%)	20 (20.4%)
Declined to answer	1 (0.4%)	0 (0.0%)	0 (0.0%)
GK6. An HbA1c of <8% is the most appropriate goal for the majority of individuals with T2D. n (%)			
True	79 (30.4%)	11 (25.0%)	18 (18.4%)
False (Correct)	180 (69.2%)	33 (75.0%)	80 (81.6)
Declined to answer	1 (0.4%)	0 (0.0%)	0 (0.0%)
GK7. Which of the following antihyperglycemic medication classes is associated with weight loss in T2D? n (%)			
DDP-4i inhibitors	34 (13.1%)	0 (0.0%)	13 (13.3%)
SGLT2i inhibitors (Correct)	216 (83.1%)	43 (97.7%)	83 (84.7%)

Sulfonylureas	3 (1.2%)	0 (0.0%)	1 (1.0%)
Thiazolidinediones (TZDs)	6 (2.3%)	1 (2.3%)	1 (1.0%)
Declined to answer	1 (0.4%)	0 (0.0%)	0 (0.0%)
GK8. Which of the following statements is true regarding treatments in individuals with T2D? Select the one best response. n (%)			
Statins are recommended for the majority of individuals aged 40 to 75 years (Correct)	243 (93.5%)	39 (88.6%)	86 (87.8%)
Aspirin is recommended for the majority of individuals aged 40 to 75 years	10 (3.8%)	3 (6.8%)	6 (6.1%)
Statins plus fibrate combination therapy is generally recommended as it has been shown to improve ASCVD outcomes	7 (2.7%)	2 (4.5%)	3 (3.1%)
ACE-inhibitors should be discontinued in most patients with even minor increases in serum creatinine (<30%)	0 (0.0%)	0 (0.0%)	3 (3.1%)
GK9. CV risk factors include obesity/overweight, hypertension, dyslipidemia, smoking, a family history of premature coronary disease, chronic kidney disease and the presence of albuminuria. n (%)			
True (Correct)	240 (92.3%)	44 (100.0%)	93 (94.9%)
False	10 (3.8%)	0 (0.0%)	3 (3.1%)
Not sure	10 (3.8%)	0 (0.0%)	2 (2.0%)
GK Score Statistics			
Mean	77.1%	84.7%	79.5%
(SD)	(15.5%)	(14.2%)	(15.3%)
95% Confidence Interval	(75.3, 78.8)	(80.6, 88.9)	(75.8, 83.2)
% $\geq$80% correct	58%	77%	60%

Supplemental Table 3. TM Treatment Measure Attainment by Clinician Type

TM Measure Description	Number of Clinicians	Mean % Clinicians	95% Confidence Interval (%) Lower Bound	95% Confidence Interval (%) Upper Bound	% ≥75 Percentile TM Attainment
TM1. % of adult patients with T2D who have HbA1c laboratory test per clinician					
Primary Care Physician	217	84.9	82.4	87.3	28.1
Endocrinologist	40	86.8	82.4	91.1	22.5
Physician Assistant/ Nurse Practitioner	57	94.3	91.6	97.0	61.4
Total	314	86.8	85.0	88.7	33.4
TM2. % of adult patients with T2D who have eGFR and UACR tests performed per clinician					
Primary Care Physician	217	41.3	37.3	45.4	25.8
Endocrinologist	40	54.0	46.3	61.7	27.5
Physician Assistant/ Nurse Practitioner	57	34.2	26.7	41.6	15.8
Total	314	41.6	38.3	44.9	24.2
TM3. % of adult patients with T2D who were prescribed a statin per clinician					
Primary Care Physician	217	72.2	70.0	74.3	24.0
Endocrinologist	40	78.1	73.8	82.5	32.5
Physician Assistant/ Nurse Practitioner	57	75.9	72.1	79.6	28.1
Total	314	73.6	71.9	75.3	25.8
TM4. % of adult patients with T2D+ASCVD who were prescribed a GLP-1 or SGLT2 per clinician					
Primary Care Physician	169	32.9	27.6	38.2	22.5
Endocrinologist	39	51.8	41.1	62.6	38.5
Physician Assistant/ Nurse Practitioner	51	37.9	27.2	48.6	23.5
Total	259	36.7	32.4	41.1	25.1
TM5. % of adult patients with T2D+HF who were prescribed a SGLT2 per clinician					
Primary Care Physician	148	27.9	21.9	33.9	27.7
Endocrinologist	33	39.0	25.7	52.2	42.4
Physician Assistant/ Nurse Practitioner	34	29.8	16.2	43.5	23.5
Total	215	29.9	24.9	34.9	29.3
TM6. % of adult patients with T2D+CKD who were prescribed a GLP-1 or SGLT2 per clinician					
Primary Care Physician	150	24.4	18.7	30.1	25.3
Endocrinologist	33	21.4	12.6	30.2	27.3
Physician Assistant/ Nurse Practitioner	37	20.9	10.1	31.7	21.6
Total	220	23.4	18.9	27.8	25.0

Abbreviations: ASCVD, atherosclerotic cardiovascular disease; CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; GLP-1, glucagon-like peptide-1; HbA1c, hemoglobin A1c; HF, heart failure; SGLT2, sodium-glucose cotransporter-2; TM, Therapeutic Management; UACR, urine albumin to creatinine ratio.,

Note: TM measures calculated on a per measure basis only for clinicians with ≥5 eligible patients.