## **Glucose Monitoring MCAC**

Please rate the following complications according to their burden (prevalence x severity) in Medicare patients with type 2 diabetes. Rank cach item in the prevalence and severity columns 1-8 and use each ranking only once. Maximal Socre. 18:876 et Al. Inimal Socre. 18:876 et Al.											Hayward			Voting Member Average	Overall Average
S   Very Important   4   S   S   4   4   5   5   5   5   5   5   5   5														evalence and	severity
Concentrate thypoglycemia rates	1 1					_	•				ery Unimpo	ertant			
Hypoglycemia-related falls   4   5   5   5   5   5   4   3   3   5   5   2   5   4   3   4.33     Post-operative morbidity   3   3   3   4   2   2   2   2   4   4   4   4   3   2   2   4   2.86   3.08     Weight									5				4	4.57	4.50
Post-operative morbidity	Concomitant hypoglycemia rates	5	5	5	5	5	5	5	5	5	4	5	5	5.00	4.92
Weight   September   Septem	Hypoglycemia-related falls	4	5	5	5	4	3	5	5	2	5	4	5	4.43	4.33
Weight   Second   Weight   W	Post-operative morbidity	3	3	3	2	2	2	4	5	4	3	4	5	2.71	3.33
Quality of Life  4 5 5 5 4 4 4 4 5 5 5 4 4 4 4 4 2.9 4.33  A. There have been several large trials of glycemic control in relatively young patients (DCCT) and patients up to age 65 (UKPDS). How confident are you that glycemic control prevents or delays the onset of chronic complications, especially cardiovascular events and death, in patients who develop type 2 diabetes at age 65 or older and that the duration of complication delay, if any, is clinically, and not just statistically, significant.    SVery Confident	Wound-healing	3	3	4	2	2	2	4	4	4	3	2	4	2.86	3.08
3 A. There have been several large trials of glycemic control in relatively young patients (DCCT) and patients up to age 65 (UKPDS). How confident are you that glycemic control prevents or delays the onset of chronic complications, especially cardiovascular events and death, in patients who develop type 2 diabetes at age 65 or older and that the duration of complication delay, if any, is clinically, and not just statistically, significant.    SVery Confident	Weight	3	4	4	2	3	1	4	4	1	1	2	3	3.00	2.67
prevents or delays the onset of chronic complications, especially cardiovascular events and death, in patients who develop type 2 diabetes at age 65 or older and that the duration of complication delay, if any, is clinically, and not just statistically, significant at \$\frac{5\text{Very Confident}}{4}\$ \$\frac{4\text{ Very Nonfident}}{4}\$ \$\frac{3\text{Very Confident}}{3}\$ \$\frac{2\text{Very Confident}}{4}\$ \$\frac{3\text{Very Confident}}{3}\$ \$\frac{3\text{Very Confident}}{4}\$ \$\frac{3\text{Very Confident}}{3}\$ \$\frac{3\text{Very Confident}}{4}\$ \$\frac{3\text{Very Confident}}{3}\$ \$\frac{3\text{Very Confident}}{4}\$ \$\frac{3\text{Very Confident}}{3}\$ \$3\text{Very Confide	Quality of Life	4	5	5	4	4	4	4	5	5	4	4	4	4.29	4.33
B. How important (statistically and clinically) is glycemic control relative to other therapeutic modalities (e.g., lipid control, blood pressure control) in the prevention and delay of 5 Very Confident 4 Somewhat confident 3 Unsure 2 Somewhat Unconfident 1 Very Unconfident 1 Ve	prevents or delays the onset of chronic complication complication delay, if any, is clinically, and not ju	ons, esp st statis	ecially tically,	cardiovaso significant	cular ev	ents and	d death, in	n patients v	who develo	op type 2	diabetes at	age 65 c			
S Very Confident   A Somewhat   Confident   S Very Confident   S Ver		4	4	3	2	1	4	3	5	5	1	4	4	3.00	3.33
A. How confident are you that glycemic control reverses or reduces progression of pre-existing chronic complications in a clinically meaningful way in patients who had type 2 diabetes prior to age 65?    S Very Confident		nt 4		hat confide	nt 3	Unsure	2 Son	ewhat Un	confident	1 V	-				
diabetes prior to age 65?    S Very Confident		3	4	3	2	5	2	2	5	4	1	4	2	3.00	3.08
B. How important (statistically and clinically) is glycemic control relative to other therapeutic modalities (e.g., lipid control, blood pressure control) in the reversal and delayed progression of pre-existing chronic complications, especially cardiovascular events and death, in patients with type 2 diabetes prior to age 65?  5 Very Important  4 Somewhat Important  3 Unsure  2 Somewhat Unimportant  1 Very Unimportant  1 Very Unimportant  4 Somewhat Important  5 Can the information on hypoglycemia in type 1 patients be generalized to Medicare-aged type 2 patients? More specifically, how confident are you that hypoglycemic risk (frequency and severity) for a given level of glycemic control is similar for patients with type 1 diabetes and type 2 diabetes?  5 Very Confident  4 Somewhat Confident  3 Unsure  2 Somewhat Unimportant  1 Very Unimportant  1 Very Unimportant  2 Somewhat Unimportant  1 Very Unimportant  4 Somewhat Inportant  5 Very Confident  4 Somewhat Confident  3 Unsure  2 Somewhat Unimportant  1 Very Unimportant  1 Very Unimportant  2 Somewhat Unimportant  4 Somewhat Unimportant  4 Somewhat Unimportant  1 Very Unimportant  4 Somewhat Inportant  4 Somewhat Unimportant  4 Somewhat Unimportant  4 Somewhat Unimportant  1 Very Unimportant  4 Somewhat Inportant  4 Somewhat Unimportant  4 Somewhat Unimportant  4 Somewhat Unimportant  1 Very Unimportant  4 Somewhat Inportant  4 Somewhat Unimportant  4 Very Unimportant  4 Somewhat Inportant  4 Somewhat Unimportant  4 S	diabetes prior to age 65?					•		•					y in patie	ents who had	type 2
B. How important (statistically and clinically) is glycemic control relative to other therapeutic modalities (e.g., lipid control, blood pressure control) in the reversal and delayed progression of pre-existing chronic complications, especially cardiovascular events and death, in patients with type 2 diabetes prior to age 65?    S Very Important	3 very Conjude								20njiaeni 1				1	4.00	4.25
progression of pre-existing chronic complications, especially cardiovascular events and death, in patients with type 2 diabetes prior to age 65?    S Very Important		<u> </u>	<u> </u>	•		_		·	7				•		
Can the information on hypoglycemia in type 1 patients be generalized to Medicare-aged type 2 patients? More specifically, how confident are you that hypoglycemic risk (frequency and severity) for a given level of glycemic control is similar for patients with type 1 diabetes and type 2 diabetes?    S Very Confident	progression of pre-existing chronic complications	especia ant 4	ally car	diovascula	r event	s and de	ath, in pa	tients with	type 2 dia	betes pr	ior to age 6	5?	in the re		
(frequency and severity) for a given level of glycemic control is similar for patients with type 1 diabetes and type 2 diabetes?    S Very Confident   4 Somewhat confident   3 Unsure   2 Somewhat Unconfident   1 Very Unconfident		3	4	3	2	5	2	2	4	5	2	4	4	3.00	3.33
Non-Insulin using 1 3 2 2 1 2 2 4 2 1 1 2 1.86 1.92  How confident are you that glucose monitoring improves, by a clinically meaningful degree, glycemic control (HbA1c) and decreases the risk for hypoglycemia at a given level of HbA1c?  Type 1  Blood glucose >4x/day 4 4 4 4 5 5 5 4 5 5 4 5 4.29 4.45	(frequency and severity) for a given level of glyce	mic cor	ntrol is	similar for	patient	s with ty	ype 1 dial	etes and t	ype 2 diab	etes?			hat hypo	glycemic ris	k
How confident are you that glucose monitoring improves, by a clinically meaningful degree, glycemic control (HbA1c) and decreases the risk for hypoglycemia at a given level of HbA1c?  Type 1  Blood glucose >4x/day  4 4 4 4 5 5 5 4 5 5 4 5 4.29 4.45	· ·	3			3	1			5	5	1	1	2	3.00	2.92
HbA1c?  Type 1  Blood glucose >4x/day  4 4 4 4 5 5 4 5 4 5 4.29 4.45	Non-Insulin using	1	3	2	2	1	2	2	4	2	1	1	2	1.86	1.92
Blood glucose >4x/day	HbA1c?	proves	, by a c	linically m	eaning	ful degre	ee, glycer	nic control	(HbA1c)	and decr	eases the ri	sk for hy	poglycer	nia at a give	n level of
Continuous monitoring (interstitial fluid)         3         2         4         1         5         4         4         5         5         1         4         3.29         3.45					4						4				
	Continuous monitoring (interstitial fluid)	3	2	4	1	5	4	4	5	5	1	4		3.29	3.45

## **Glucose Monitoring MCAC**

	Krist	Black	Bradham	Piper	Puklin	Weiner	Fendrick	Queenan	Rucker	Hayward	Molich	Reiber	Voting Member Average	Overall Average
Continuous monitoring + subcut. infusion pump	3	2	4	1	5	4	5	5	5	1	5		3.43	3.64
Type 2 On diet Therapy														
Blood glucose >1x/day	3	2	1	1	1	2	2	4	5	3	1	1	1.71	2.17
Blood glucose >2x/day	2	2	1	1	1	2	2	4	5	1	1	1	1.57	1.92
Blood glucose >4x/day	1	1	2	1	1	1	2	4	3	1	1	1	1.29	1.58
Continuous monitoring (interstitial fluid)	1	1	2	1	1	1	2	5	3	1	1	1	1.29	1.67
Continuous monitoring + subcut. infusion pump			1		1				1	1	1	1	1.00	1.00
Type 2 On oral agents														
Blood glucose >1x/day	3	4	3	2	3	4	2	4	5	3	4	3	3.00	3.33
Blood glucose >2x/day	2	2	3	2	3	3	3	4	5	1	3	4	2.57	2.92
Blood glucose >4x/day	1	2	3	2	3	3	3	5	3	1	1	•	2.43	2.45
Continuous monitoring (interstitial fluid)	1	1	3	1	3	2	3	5	3	1	1	1	2.00	2.08
Continuous monitoring + subcut. infusion pump	•		J	•	5	_	5		3	•	•	•		
community success master pump			3		3				1	1	1	1	3.00	1.67
Type 2 Using Insulin														
Blood glucose >1x/day	4	3	3	2	1	5	3	4	5	4	5	3	3.00	3.50
Blood glucose >2x/day	3	4	4	4	1	5	4	4	5	3	5	4	3.57	3.83
Blood glucose >4x/day	3	2	4	4	5	5	4	5	5	1	4		3.86	3.82
Continuous monitoring (interstitial fluid)	2	2	4	1	5	3	4	5	5	1	3	3	3.00	3.17
Continuous monitoring + subcut. infusion pump														
	1	1	4	1	5	3	4	5	1	1	4	3	2.71	2.75

<sup>7</sup> Does increased glucose monitoring in Type 2 patients improve clinical outcomes? More specifically, how confident are you that:

3

B. The optimal frequency for glucose monitoring (number of strips per week, number of strips per day, or continuous) in Medicare age patients (\$\geq 65\$ years) with type 2 diabetes is known?

	1 1	1 3	1	1	1	3	3	3	1	3	1	1.57	1.83
5 Very Confident	4 Som	ewhat confide	ent	3 Unsure	2 Som	ewhat Un	confident	1 V	ery Uncor	nfident			

2.43

2.67

A. An increased frequency of out-patient glucose monitoring translates to decreases in chronic complications (specifically cardiovascular morbidity and mortality) in Medicare age patients (>65 years) with type 2 diabetes?

## **Glucose Monitoring MCAC** Question 1

Question 1: Please rate the following complications according to their burden (prevalence x severity) in Medicare patients with type 2 diabetes. Rank each item in the prevalence and severity columns 1-8 and use each ranking only once. Maximal score: 8x8=64. Minimal score: 1x1=1. 1 least important; 8 most important.

			rist				lack				dhan				iper				klin				einer				drick				enan			Ruc					vard			Mol					iber			Av	erag	,e
	Α	В	C	D	Α	B	C	D	Α	В	C	D	Α	В	C	D	A	В	С	D	Α	В	C	D	Α	В	C	D	A	В	С	D	A	В	C	D	A	В	C	D	A	В	C	D	A	В	С	D	A	F	В	CD
a. All cause mortality	8	8	64	1	4	. 8	32	2	7	8	56	1	2	8	16	3	1	1	1	8	2	8	16	4	4	8	32	2	8	8	64	1	8	8	64	1	4	8 3	32	1	5	8	40	2	7	8	56	1	5.0	0 7.	.4	7
b. Fatal and non-fatal cardiovascular disease including CHF secondary to ischemic disease & non- hemorrhagic stroke	6	7	42	2	6	5 7	42	1	8	7	56	1	8	7	56	1	7	8	56	1	8	7	56	1	5	7	35	1	5	6	30	2	7	7	49	2	6	5 3	30	2	6	7	42	1	8	7	56	1	6.7	7 6.	.8	8
c. Retinopathy resulting in legal blindness	2	5	10	5	1	4	4	8	6	2	12	3	3	5	15	4	2	2	4	7	1						6						6	6	36	3	3	6	18	3	1	5	5	8	1	4	4	8	2.3	3 4	.5	1
d. Other retinopathy	7	3	21	3	5	2	10	6	5	1	5	8	7	2	14	6	6	7	42	3	6	3	18	2	7	2	14	4	7	2	14	5	3	3	9	6	7	1	7	7	7	1	7	7	4	3	12	4	5.9	2	5	4
e. Nephropathy resulting in dialysis or transplantation	1	6	6	7	2	6	12	5	1	6	6	7	1	4	4	8	8	6	48	2	3	6	18	2	2	5	10	6	3	7	21	3	5	5	25	4	1	7	7	7	2	6	12	4	2	6	12	4	2.€	5 5	.8	5
f. Other nephropathy including micro/macroalbuminemia	3	1	3	8	7	3	21	3	2	5	10	6	5	3	15	4	3	3	9	6	5	2	10	6	8	1	8	7	6	3	18	4	2	2	4	7	5	3	15	5	4	2	8	6	5	2	10	6	4.6	5 2.	.5	2
g. Amputation	4	4	16	4	3	5	15	4	3	4	12	3	4	6	24	2	4	4	16	5	4	4	16	4	3	4	12	5	2	5	10	6	4	4	16	5	2	4	8	6	3	4	12	4	3	5	15	3	3.3	3 4.	.4	6
h. Abnormal neuropathy testing	5	2	10	5	8	1	8	7	4	3	12	3	6	1	6	7	5	5	25	4	7	1	7	7	6	3	18	3	4	1	4	7	1	1	1	8	8	2	16	4	8	3	24	3	6	1	6	7	5.7	7 2	.0	3

A = Relative prevalence

B = Clinical Severity

C = Composite

D = Relative Rank (Overall result is average of relative ranks