

Diabetes Education – evaluation questionnaire

Date ____ / ____ / ____

Study No _____

RND _____

BASELINE QUESTIONS

1. How would you describe your computer skills:

beginner

intermediate

expert

2. Do you personally have email access at home / work? YES NO

3. Do you have on-line Internet / World Wide Web access at home / work? YES NO

4. Which level (grade) did you reach at school? _____

5. Do you have a job? YES NO

5.a - If yes, which job? _____

SECTION I - self confidence.**Qu. 6. Please rate how confident you are that you can do the following things at present**

	<i>(0=not at all confident</i>						<i>6=totally confident)</i>
6.a I can manage my diabetes	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
6.b I can deal with hypoglycemic episodes	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
6.c I can test my blood sugar correctly	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
6.d I can have a trip abroad	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
6.e I can do my usual physical activity	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
6.f I can work out what to eat at home	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
6.g I can eat out at a restaurant	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
6.h I can control my weight	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
6.i I can cope with my diabetes when I am sick	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
6.j I can inject my insulin correctly	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>

Qu. 7. Please circle a number which indicates your answer

	<i>(0=not at all</i>						<i>6=extremely)</i>
7.a How concerned are you about your diabetes	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
7.b How satisfied are you with your blood sugar control	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>

SECTION II - *quality of life and metabolic control.*

- 8.a How many times in the last month have you had a low blood sugar reaction with sweating, weakness, anxiety, trembling, hunger, or headache (hypoglycemia)?
- 0 1-3 4-6 7-12 12+
- 8.b How many times in the last year have you had severe hypoglycemia with loss of consciousness or need for help?
- 0 1-3 4-6 7-12 12+
- 8.c How many days in the last month have you had high blood sugar with thirst, dry mouth and skin, nausea or fatigue?
- 0 1-3 4-6 7-12 12+
- 8.d Have you ever been hospitalized for the treatment of diabetes? YES NO
- 8.e - If yes, how many times in the past year? _____
- 8.f How often does your diabetes prevent you from doing your normal daily activities?
(0=*almost never*; 6=*almost always*)
- 0 1 2 3 4 5 6

SECTION III - social and emotional impact of diabetes on lifestyle.

Qu. 9. My diabetes and its treatment prevent me from:

(0=strongly disagree; 1=disagree; 3=neutral; 5=agree; 6=strongly agree)

9.a	Having enough money	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.b	Meeting work responsibilities	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.c	Going out or travelling	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.d	Being as active as I would like	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.e	Eating foods that I like	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.f	Having a good relationship with people	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.g	Going to sleep late	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.h	Having diabetes makes my life difficult	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.i	I am afraid of my diabetes	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.j	I find it hard to believe that I really have diabetes	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.k	I feel depressed because of my diabetes	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.l	I have no difficulty taking care of my diabetes	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.m	I feel inferior to others because of my diabetes	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.n	I find it hard to do all my things because of my diabetes	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.o	All things considered, I feel satisfied with my life	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.p	I can do anything I set out to do	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
9.q	I would like to change many things about myself	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>

SECTION IV - attitudes towards SMBG.

Qu. 10. When you do not test your blood glucose, how often is it because:

	(0= <i>Never</i>		3= <i>Sometimes</i>		6= <i>Always</i>)		
10.a You forgot	<u>0</u>	1	2	3	4	5	<u>6</u>
10.b You do not believe it is useful	<u>0</u>	1	2	3	4	5	<u>6</u>
10.c The time or place was not appropriate	<u>0</u>	1	2	3	4	5	<u>6</u>
10.d You do not like to do it	<u>0</u>	1	2	3	4	5	<u>6</u>
10.e You ran out of test materials	<u>0</u>	1	2	3	4	5	<u>6</u>
		(0= <i>Not relevant</i>		3= <i>Sometimes is relevant</i>		6= <i>Always relevant</i>)	
10.f How important is it that you follow exactly your test schedule for measuring blood glucose	<u>0</u>	1	2	3	4	5	<u>6</u>
10.g How much does blood glucose (BG) testing help you control your diabetes	<u>0</u>	1	2	3	4	5	<u>6</u>
		(0= <i>Never</i>		3= <i>Sometimes</i>		6= <i>Always</i>)	
10.h How often do you adjust your insulin dose on the basis of your BG test results?	<u>0</u>	1	2	3	4	5	<u>6</u>
10.i How often do you adjust your diet on the basis of your BG test results?	<u>0</u>	1	2	3	4	5	<u>6</u>
10.j How often do you adjust your physical activity on the basis of your BG test results?	<u>0</u>	1	2	3	4	5	<u>6</u>

SECTION V - prior knowledge about diabetes.

Qu. 11. Place an X to indicate whether each item below is associated with hyperglycemia or hypoglycemia as a sign or symptom.

- | | | | |
|------|--------------------|---|--|
| 11.a | No glycosuria | <input type="checkbox"/> <i>Hyperglycemia</i> | <input type="checkbox"/> <i>Hypoglycemia</i> |
| 11.b | Dry skin and mouth | <input type="checkbox"/> <i>Hyperglycemia</i> | <input type="checkbox"/> <i>Hypoglycemia</i> |
| 11.c | Happens slowly | <input type="checkbox"/> <i>Hyperglycemia</i> | <input type="checkbox"/> <i>Hypoglycemia</i> |
| 11.d | Increased thirst | <input type="checkbox"/> <i>Hyperglycemia</i> | <input type="checkbox"/> <i>Hypoglycemia</i> |

Qu. 12. Place an X to indicate whether each item below is associated with hyperglycemia or hypoglycemia as a cause.

- | | | | |
|------|-------------------|---|--|
| 12.a | Too much insulin | <input type="checkbox"/> <i>Hyperglycemia</i> | <input type="checkbox"/> <i>Hypoglycemia</i> |
| 12.b | Too much exercise | <input type="checkbox"/> <i>Hyperglycemia</i> | <input type="checkbox"/> <i>Hypoglycemia</i> |
| 12.c | Too much food | <input type="checkbox"/> <i>Hyperglycemia</i> | <input type="checkbox"/> <i>Hypoglycemia</i> |

Qu.13. Insulin reactions (hypoglycemic episodes) are likely to occur:

- 13.a During vigorous exercise TRUE FALSE
- 13.b During the peak action of your insulin TRUE FALSE
- 13.c Just before meals TRUE FALSE
- 13.d During any of the times mentioned above TRUE FALSE

Qu.14. One ml of U-100 insulin contains:

- 14.a 1 Unit TRUE FALSE
- 14.b 40 Units TRUE FALSE
- 14.c 80 Units TRUE FALSE
- 14.d 100 Units TRUE FALSE

SECTION VI - 'what-if' type questions.

- 15.a **How many extra Humalog insulin units would you need to add if you increased your lunch by 20 more grams of sugar?** 1 2 3 4 5 *don't know*
- 15.b **Which of the following is a reasonable action if you double the carbohydrate content of your breakfast (from 20 grams to 40 grams)**
- (i) Increase your fast acting insulin from 5 units to 6 units
 - (ii) Increase your fast acting insulin with 3 more units
 - (iii) Decrease your fast acting insulin by 1 unit
 - (iv) Decrease your fast acting insulin and add 4 units of Intermediate acting insulin
- 15.c **If I normally inject 6 units of Humalog before breakfast (30 grams of carbohydrate), and my fasting blood glucose this morning is 55 mg/dl (3.1 mmol/l) what should I do?**
- (i) Only inject 5 units of Humalog
 - (ii) Inject 7 units of Humalog
 - (iii) Add 10 grams of carbohydrate to breakfast, and make no change to my insulin regimen
 - (iv) Add 10 grams of carbohydrate to breakfast and inject 5 units of Humalog
 - (v) Add 10 grams of carbohydrate to breakfast and inject 7 units of Humalog
 - (vi) (your option) _____
- 15.d **If I inject the usual dosage of short-acting insulin (Humulin R, Actrapid) at lunch, but I eat much less than usual, how many hours later is a hypoglycemic episode most likely?**
- 0 1 2 3 4 5 6 7 8

15.e **If I have my rapidly-acting insulin (Humalog) injection at 8:00 am and my breakfast at 08:20 am**

(i) how many hours after the injection do you think that the peak blood glucose is most likely to occur? 1 2 3 4 5 6 7 *hours*

(ii) how many hours after the injection do you think that a hypoglycemic episode is most likely to occur? 1 2 3 4 5 6 7 *hours*

15.f **If I run for 20 minutes, 5 hours after a dose of rapidly-acting (Humalog) insulin and my post-exercise blood glucose is 55 mg/dl (3.1 mmol/l), how many grams of carbohydrate should I eat to prevent a hypoglycemic episode?**

5 10 15 20 *grams*

15.g **If I feel an impending 'hypo' 2.5 hours after a rapidly-acting (Humalog) insulin injection and my blood glucose is 55 mg/dl (3.1 mmol/l),**

(i) how many grams of carbohydrate should I eat? 5 10 15 20 *grams*

(ii) should I continue checking my blood glucose? YES NO

16.a **Joe has type 1 diabetes and uses a 4 dose regimen (3 rapidly-acting [Humalog] injections and 1 intermediate-acting [NPH] injection at bedtime). His fasting blood glucose is usually in an acceptable range. Last night he increased his usual dose of intermediate-acting insulin with 2 more units, and yet this morning his blood glucose is >300 mg/dl (>16.7 mmol/l). What should he do?**

(i) Increase his morning rapidly-acting insulin

(ii) Increase his morning rapidly-acting insulin and his bedtime intermediate-acting insulin

(iii) Increase his morning rapidly-acting insulin to reduce his blood glucose and re-sample his blood glucose at 03:00 am the following night

(iv) else (give your own answer) _____

16.b **Last night Joe did not have dinner and did not take his bedtime insulin injection. This morning he has a blood glucose level of 400 mg/dl (22.2 mmol/l) and ketone bodies in his urine.**

- (i) This is because he could not sleep during the night (insomnia and stress)
- (ii) Insulin has accumulated in his body
- (iii) There is another explanation apart from food
- (iv) else (give your own answer) _____

16.c **Joe's normal blood glucose is always 250 mg/dl (13.8 mmol/l) before breakfast and 120 mg/dl (6.7 mmol/l) 2 hours after dinner. What would you suggest to improve his blood glucose control?**

- (i) Reduce the rapidly-acting insulin before dinner
- (ii) Increase the bedtime intermediate-acting insulin dose
- (iii) Increase the rapidly-acting insulin before breakfast
- (iv) else (give your own answer) _____

16.d **Bob ate twice his usual amount of carbohydrate at dinner. He had already injected his 10 units of rapidly-acting (Humalog) insulin. What should he do?**

- (i) Try to vomit
- (ii) Add one more rapidly-acting (Humalog) insulin injection (of 3 units more)
- (iii) Increase his intermediate-acting (NPH) insulin dose at bedtime
- (iv) else (give your own answer) _____

16.e **My doctor asked me to check my blood glucose at 3:00 am. Why?**

- (i) He wants to know if I am a reliable person
- (ii) He has no real purpose
- (iii) else (give your own answer) _____

16.f **I had my usual intermediate-acting (NPH) injection at 11:00 pm. If my blood glucose at 03:00 am is 120 mg/dl (6.7 mmol/l), what will happen next?**

- (i) A hypoglycemic episode at approximately 05:00 am
- (ii) Nothing will happen
- (iii) Depends on the time course of my last insulin injection
- (iv) else (give your own answer) _____

16.g **This evening I will have my nephew's birthday and I will eat more than usual. What should I do?**

- (i) Increase my rapidly-acting insulin before dinner
- (ii) Increase my intermediate-acting insulin at bedtime
- (iii) Do both the above
- (iv) Check my blood glucose at 03:00 am
- (v) Take 2 injections of rapidly-acting insulin: the first at 10:00 pm and the second at 06:00 am

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