

## APPENDIX A

### Informed Consent Form

Dear patients,

My name is Rosmawati Mohamed. I am a tutor at Nursing Education Unit of University Science Malaysia, of health Sciences. Now, I am a Master student of Nursing Science of Advanced Nursing Program in Prince of Songkla University, Thailand. I am conducting a nursing research project to examine the health education of diabetes mellitus among of type II patients. If you agree to participate, you will be asked to complete the demographic and self-care practice questionnaire, and will take time about 20-30 minutes. Please do not hesitate to ask me if you find difficulties in understanding each item.

This study will bring no harm to you or your family. The information gathered will be used to write report and remain confidentiality. Yours answers and your personal identity will be revealed in the reports of the study. However, it will depend on you whether you participate or not. Your refusal will not have any effect on the treatment or nursing care to you. Even during the processes, you have the right to withdraw at any time or neglect each item that you would not like to answer. All of your information will only be used for the purpose of this study. Your signature in this form will indicate that you understand this form and are willing to participate in this study.

-----	-----	-----
Name of Participant	Signature	Date

-----	-----	-----
Name of Researcher	Signature	Date

If you still have questions or need more information, you can contact me at the following address:

**Nursing Education Unit**

**University Sains Malaysia, School of Health Sciences**

**Kubang Kerian, Kelantan.**

**Phone (013-9386893), email: maniq04@hotmail.com**

**Master of Nursing Science in Adult Nursing**

**International Program, Faculty of Nursing**

**Prince of Songkla University**

**Hat Yai Songkla Thailand 90112**

## APPENDIX B

## Demographic and Health Information Form

Code: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Instruction: This instrument comprised of demographic and health information data. Please, fill the blank and give mark “√” in the box “☐” next to the answer you have selected.

1. Age : .....years ..... months.

2. Gender                       (1) Male                               (2) Female

3. Religion                       (1) Islam                               (2) Christian  
 (3) Hindu                               (4) Buddhism

4. Level of education               (1) No formal education               (2) Elementary School  
 (3) Junior High School               (4) Senior High School  
 (5) College or above

5. Marital status                       (1) Single                               (2) Married  
 (3) Widow                               (4) Divorced

6. Occupation                       (1) None                               (2) Retirement  
 (3) Farmer                               (4) Self-employment  
 (5) Private employment               (6) Government  
employment

7. Income : Ringgit ..... /month

8. Duration of having diabetes: ..... years.

9. Treatments received, you can select more than one:

(1) Oral medications

(2) Diet

(3) Oral medications and diet

(4) Other .....

10. Last blood glucose level .....mg

### Diabetes Self-Care Practice Questionnaire

Instruction: The following items are used to measure your self-care practice. The score range from 1 to 6. Please choose the item that most corresponds to you (6 is the most and 1 is the least). Use a pen or pencil to make a cross (X) on top of the number you choose for each item.

	Least					Most
	1	2	3	4	5	6
1. How do you seek information on dietary control?	1	2	3	4	5	6
2. How do you seek knowledge on types of food that you should consume?	1	2	3	4	5	6
3. How do you seek knowledge on the appropriate amount of food for each meal?	1	2	3	4	5	6
4. How do you practice choosing low fat food for each meal?	1	2	3	4	5	6
5. How do you practice on adjusting the amount of food?	1	2	3	4	5	6
6. How do you practice changing types of food for each meal?	1	2	3	4	5	6
7. How do you practice appropriate methods of preparing food or cooking?	1	2	3	4	5	6
8. How do you practice reducing carbohydrate for each meal?	1	2	3	4	5	6

9. How do you practice increasing the amount of vegetables for each meal?	1	2	3	4	5	6
10. How do you seek knowledge on the significance of exercise on controlling your diabetes?	1	2	3	4	5	6
11. How do you seek knowledge on your appropriated types of exercise?	1	2	3	4	5	6
12. How do you seek knowledge on your appropriated amount of exercise?	1	2	3	4	5	6
13. How do you adjust to the recommended exercise program in your schedule?	1	2	3	4	5	6
14. How do you practice adjusting your amount of exercise?	1	2	3	4	5	6
15. How do you practice selecting the better types of exercises?	1	2	3	4	5	6
16. How do you control exercise intensity according to your appropriateness?	1	2	3	4	5	6
17. How do you practice the appropriated type of exercise?	1	2	3	4	5	6
18. How frequent do you exercise?	1	2	3	4	5	6
19. How do you seek knowledge on the significance of medication on controlling your blood sugar?	1	2	3	4	5	6



20. How do you seek knowledge on your medications and their side-effects?	1	2	3	4	5	6
21. How do you seek knowledge on managing your medication regimen?	1	2	3	4	5	6
22. How do you practice adjusting how to take daily medication regimen?	1	2	3	4	5	6
23. How do you practice adjusting the doses of your medication?	1	2	3	4	5	6
24. How do you adjust ways to prevent the side effects of your medication?	1	2	3	4	5	6
25. How do you practice taking medication on your own?	1	2	3	4	5	6
26. How do you practice managing the side effects of your medication?	1	2	3	4	5	6
27. How do you seek information on the effects of stress?	1	2	3	4	5	6
28. How do you seek knowledge on managing your stress?	1	2	3	4	5	6
29. How do you seek knowledge on assessment of your stress level?	1	2	3	4	5	6
30. How do you modify with your coping strategy?	1	2	3	4	5	6

31. How do you modify your resources for stress management?	1	2	3	4	5	6
32. How do you modify the ways to reduce your stress?	1	2	3	4	5	6
33. How frequent do you practice stress management.	1	2	3	4	5	6
34. How do you examine your stress level?	1	2	3	4	5	6
35. How do you know how to manage when stress occurs?	1	2	3	4	5	6
36. How do you seek knowledge on the importance of having good personal hygiene?	1	2	3	4	5	6
37. How do you seek knowledge on managing your personal hygiene for preventing diabetes complications?	1	2	3	4	5	6
38. How do you practice adjusting your routine for good personal hygiene?	1	2	3	4	5	6
39. How do you pay attention on your personal hygiene?	1	2	3	4	5	6
40. How do you adjust yourself for better oral care?	1	2	3	4	5	6

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 41. How do you adjust yourself for better care of your feet? | 1 | 2 | 3 | 4 | 5 | 6 |
| 42. How do you practice your perineal care?                  | 1 | 2 | 3 | 4 | 5 | 6 |
| 43. How do you practice your oral care?                      | 1 | 2 | 3 | 4 | 5 | 6 |
| 44. How do you practice taking care of your feet?            | 1 | 2 | 3 | 4 | 5 | 6 |

## APPENDIX C

## Pre-test and Post-test Self-Care Practice Scores

Table 3

*Mean and standard deviation of pre-test and post-test self-care practice scores by item.*

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Dietary control									
1.	How do you seek information on dietary control?	2.87	1.22	2.87	1.33	1.80	0.88	4.13	0.77
2.	How do you seek knowledge on types of food that you should consume?	2.93	1.50	3.17	1.41	1.90	0.80	4.20	0.76
3.	How do you seek knowledge on the appropriate amount of food for each meal?	2.80	1.50	3.03	1.27	2.07	0.94	4.23	0.67

Table 3 (Continued)

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
4.	How do you practice choosing low fat food for each meal?	2.97	1.27	2.90	1.21	2.00	1.08	4.20	0.66
5.	How do you practice on adjusting the amount of food?	2.70	1.14	2.70	1.11	1.73	0.78	4.07	0.69
6.	How do you practice changing types of food for each meal?	2.90	1.06	2.77	1.07	1.80	0.99	4.03	0.71
7.	How do you practice reducing carbohydrate for each meal?	2.50	1.30	2.60	1.22	1.67	0.92	4.00	0.69
8.	How do you practice increasing the amount of vegetables for each meal?	2.83	1.39	2.77	1.35	1.87	0.76	4.03	0.66

Table 3 (Continued)

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
9.	How do you practice increasing the amount of vegetables for each meal?	3.43	1.54	3.33	1.47	2.03	0.92	4.17	0.74
	Exercise								
10.	How do you seek knowledge on the significance of exercise on controlling your diabetes?	3.70	1.55	3.63	1.56	2.53	1.38	4.60	0.85
11.	How do you seek knowledge on your appropriate types of exercise?	2.77	1.35	2.73	1.14	1.87	1.16	4.23	0.85
12.	How do you seek knowledge on your appropriated amount of exercise?	2.73	1.25	2.80	1.12	1.63	0.85	4.17	0.83

Table 3 (Continued)

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
13.	How do you adjust to the recommended exercise program in your schedule?	2.50	1.33	2.57	1.33	1.50	0.77	4.07	0.82
14.	How do you practice adjusting your amount of exercise?	2.33	1.32	2.40	1.27	1.70	0.83	4.07	0.82
15.	How do you practice selecting the better types of exercises?	2.80	1.42	2.60	1.30	1.70	0.91	4.17	0.87
16.	How do you control exercise intensity according to your appropriates?	2.13	1.16	2.23	1.19	1.60	0.77	4.10	0.80
17.	How do you practice the appropriated type of exercise?	2.57	1.19	2.70	1.23	1.63	0.85	4.07	0.78



Table 3 (Continued)

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
18.	How frequent do you exercise?	2.70	1.39	2.60	1.30	1.83	0.91	4.17	0.87
	Medication taking								
19.	How do you seek knowledge on the significance of medication on controlling your blood sugar?	3.33	1.44	3.53	1.33	2.17	1.28	4.63	0.80
20.	How do you seek knowledge on your medications and their side-effects?	3.13	1.57	3.07	1.55	2.13	1.57	4.53	0.77
21.	How do you seek knowledge on managing your medication regimen?	2.1	1.55	3.70	1.41	2.53	1.71	4.77	0.81

Table 3 (Continued)

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
22.	How do you practice adjusting how to take daily medication regimen?	4.33	1.37	4.13	1.25	3.27	1.85	5.10	0.84
23.	How do you practice adjusting the doses of your medication?	4.33	1.42	4.17	1.23	3.10	2.02	4.97	0.80
24.	How do you adjust ways to prevent the side effects of your medication?	3.13	1.61	3.03	1.62	1.97	1.24	4.63	0.66
25.	How do you practice taking medication on your own?	4.47	1.71	4.33	1.56	4.50	1.77	5.67	0.66
26.	How do you practice managing the side effects of your medication?	3.50	1.77	2.77	1.47	2.30	1.57	4.80	0.84

Table 3 (Continued)

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
27.	How do you seek information on the effects of stress?	2.30	1.44	2.30	1.41	1.37	0.66	3.83	0.83
28.	How do you seek knowledge on managing your stress?	2.40	1.54	2.17	1.36	1.30	0.53	3.63	0.80
29.	How do you seek knowledge on assessment of your stress level?	1.97	1.40	1.90	1.21	1.37	0.66	3.77	0.85
30.	How do you modify with your coping strategy?	1.90	1.26	1.83	1.11	1.27	0.45	3.60	0.72
	Stress management								
31.	How do you modify your resources for stress management?	1.90	1.32	1.90	1.24	1.40	0.56	3.60	0.72

Table 3 (Continued)

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
32.	How do you modify the ways to reduce your stress?	2.17	1.46	2.03	1.35	1.47	0.57	3.73	0.82
33.	How frequent do you practice stress management?	1.90	1.24	1.77	1.19	1.47	0.57	3.70	0.70
34.	How do you examine your stress level?	2.10	1.42	1.97	1.32	1.27	0.45	3.73	0.74
35.	How do you know how to manage when stress occurs?	2.10	1.37	2.00	1.17	1.40	0.56	3.67	0.71
	<b>Personal hygiene</b>								
36.	How do you seek knowledge on the importance of having good personal hygiene?	4.13	1.38	3.97	1.29	3.03	1.90	4.97	0.89

Table 3 (Continued)

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
37.	How do you seek knowledge on managing your personal hygiene for preventing diabetes complications?	4.03	1.60	3.97	1.49	2.77	1.83	4.97	0.80
38.	How do you practice adjusting your routine for good personal hygiene?	4.00	1.14	3.90	1.37	3.33	1.82	5.17	0.83
39.	How do you pay attention on your personal hygiene?	4.47	1.25	4.37	1.29	3.60	1.88	5.27	0.86
40.	How do you adjust yourself for better oral care?	4.10	1.64	4.27	1.57	2.40	1.79	5.10	0.99

Table 3 (Continued)

		Control group				Experimental group			
		Pre-test		Post-test		Pre-test		Post-test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
41.	How do you adjust yourself for better care of your feet?	4.43	1.54	4.47	1.50	3.07	1.72	5.13	1.04
42.	How do you practice your perineal care?	4.27	1.63	4.33	1.58	3.50	1.71	5.40	0.77
43.	How do you practice your oral care?	3.87	1.65	4.07	1.57	3.00	1.70	5.33	0.80
44.	How do you practice taking care of your feet?	4.17	1.53	4.17	1.44	3.53	1.75	5.27	0.82

Table 3

Frequency and percentage of pre-test and post-test self-care practice score by items (n = 60)

	Control Group												Experimental Group																	
	Pre-test						Post-test						Pre-test						Post-test											
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						
Dietary control																														
1. How do you seek information on dietary control?	3	9	12	2	3	1	6	4	13	3	3	1	14	9	6	1	-	-	6	15	8	1	-	-	6	15	8	1	-	-
	10.0	30.0	40.0	6.7	10.0	3.3	20.0	13.3	43.3	10.0	10.0	3.3	46.7	30.0	20.0	3.3	-	-	20.0	50.0	26.7	3.3	-	-	20.0	50.0	26.7	3.3	-	-
2. How do you seek knowledge on types of food that you should consume?	6	7	7	5	3	2	4	7	5	10	2	2	10	14	5	1	-	-	5	15	9	1	-	-	5	15	9	1	-	-
	20.0	23.3	23.3	16.7	10.0	6.7	13.3	23.3	16.7	33.3	6.7	6.7	33.3	46.7	16.7	3.3	-	-	16.7	50.0	30.0	3.3	-	-	16.7	50.0	30.0	3.3	-	-
3. How do you seek knowledge on the appropriate amount of food for each meal?	7	4	10	6	3	-	4	6	9	8	2	1	10	10	8	2	-	-	4	15	11	-	-	-	4	15	11	-	-	-
	23.3	13.3	33.3	20.0	10.0	-	13.3	20.0	30.0	26.7	6.7	3.3	33.3	33.3	26.7	6.7	-	-	13.3	50.0	36.7	-	-	-	13.3	50.0	36.7	-	-	-
4. How do you practice choosing low fat food for each meal?	4	6	12	4	3	1	4	7	10	7	1	1	10	14	4	1	-	-	3	19	7	1	-	-	3	19	7	1	-	-
	13.3	20.0	40.0	13.3	10.0	3.3	13.3	23.3	33.3	23.3	3.3	3.3	33.3	46.7	13.3	3.3	-	-	10.0	63.3	23.3	3.3	-	-	10.0	63.3	23.3	3.3	-	-

Table 3 (cont)

	Control Group												Experimental Group																	
	Pre-test						Post-test						Pre-test						Post-test											
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						
5. How do you practice on adjusting the amount of food?	16.7	26.7	33.3	16.7	6.7	-	5	7	12	4	2	-	13	13	3	1	-	-	43.3	43.3	10.0	3.3	-	-	20.0	53.3	26.7	-	-	-
6. How do you practice changing types of food for each meal?	13.3	20.0	30.0	36.7	-	-	5	5	13	6	1	-	15	9	3	3	-	-	50.0	30.0	10.0	10.0	-	-	23.3	50.0	26.7	-	-	-
7. How do you practice reducing carbohydrate for each meal?	13.3	13.3	30.0	16.7	6.7	-	7	7	9	5	2	-	17	8	3	2	-	-	56.7	26.7	10.0	6.7	-	-	23.3	53.3	23.3	-	-	-
8. How do you practice increasing the amount of vegetables for each meal?	23.3	16.7	26.7	23.3	6.7	3.3	8	3	11	4	4	-	11	12	7	-	-	-	36.7	40.0	23.3	-	-	-	20.0	56.7	23.3	-	-	-



Table 3 (cont)

	Control Group												Experimental Group																	
	Pre-test						Post-test						Pre-test						Post-test											
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						
9. How do you practice increasing the amount of vegetables for each meal?	3	7	6	5	6	3	3	7	6	8	3	3	10	11	7	2	-	-	10	11	7	2	-	-	6	13	11	-	-	-
	10.0	23.3	20.0	16.7	20.0	10.0	10.0	23.3	20.0	26.7	10.0	10.0	33.3	36.7	23.3	6.7	-	-	33.3	36.7	23.3	6.7	-	-	20.0	43.3	36.7	-	-	-
10. Exercise How do you seek knowledge on the significance of exercise on controlling your diabetes?	3	4	6	8	4	5	4	3	6	8	5	4	8	8	9	1	3	1	8	8	9	1	3	1	-	-	-	-	-	-
	10.0	13.3	20.0	26.7	13.3	16.7	13.3	10.0	20.0	26.7	16.7	13.3	26.7	26.7	30.0	3.3	10.0	3.3	26.7	26.7	30.0	3.3	10.0	3.3	6.7	6.7	43.3	33.3	18.7	18.7
11. How do you seek knowledge on your appropriate types of exercise?	5	10	7	4	3	1	3	12	8	4	3	-	14	11	2	-	2	1	14	11	2	-	2	1	-	-	-	-	-	-
	16.7	33.3	23.3	13.3	10.0	3.3	10.0	40.0	26.7	13.3	10.0	-	46.7	36.7	6.7	6.7	6.7	3.3	46.7	36.7	6.7	6.7	6.7	3.3	6.7	43.3	30.0	6.7	6.7	6.7
12. How do you seek knowledge on your appropriated amount of exercise?	4	1	8	4	2	1	3	10	10	4	3	-	17	8	4	-	1	-	17	8	4	-	1	-	-	-	-	-	-	-
	13.3	36.7	26.7	13.3	6.7	3.3	10.0	33.3	33.3	13.3	10.0	-	56.7	26.7	13.3	-	3.3	-	56.7	26.7	13.3	-	3.3	-	20.0	50.0	23.3	6.7	23.3	6.7

Table 3 (cont)

	Control Group												Experimental Group															
	Pre test				Post-test				Pre test				Post test															
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12				
13. How do you adjust to the recommended exercise program in your schedule?	30.0	20.0	33.3	3.3	1	4	13.3	26.7	2	6	36.7	6.7	3	3	6.7	3.3	4	5	26.7	6.7	5	6	43.3	3.3	6	1	3.3	3.3
14. How do you practice adjusting your amount of exercise?	33.3	26.7	26.7	13.3	4	4	13.3	33.3	5	8	26.7	13.3	6	2	6.7	3.3	7	10	33.3	13.3	8	15	43.3	3.3	9	1	3.3	3.3
15. How do you practice selecting the better types of exercises?	23.3	23.3	20.0	16.7	5	5	16.7	23.3	6	9	20.0	16.7	7	3	10.0	6.7	8	16	30.0	10.0	9	16	43.3	6.7	10	2	6.7	6.7
16. How do you control exercise intensity according to you appropriate?	40.0	23.3	23.3	10.0	3	1	3.3	33.3	4	9	23.3	6.7	5	2	6.7	3.3	6	17	26.7	16.7	7	56.7	56.7	16.7	8	6	16.7	6.7

Table 3 (cont)

	Control Group										Experimental Group																															
	Pre-test					Post-test					Pre-test					Post-test																										
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%																						
17. How do you practice the appropriated type of exercise?	6	11	4	8	1	-	5	10	7	5	3	-	17	8	4	1	-	-	6	18	4	2	20.0	36.7	13.3	26.7	3.3	16.7	10.0	56.7	26.7	13.3	3.3	20.0	60.0	13.3	6.7					
18. How frequent do you exercise?	5	3	10.0	5	3	3	6	11	6	3	4	-	14	8	7	1	-	-	6	16	5	3	16.7	43.3	16.7	10.0	46.7	26.7	23.3	3.3	20.0	53.3	16.7	10.0								
Medication taking																																										
19. How do you seek knowledge on the significance of medication on controlling your blood sugar?	4	5	6	9	4	2	1	8	4	10	5	2	13	7	3	6	1	-	1	14	10	5	13.3	16.7	20.0	30.0	43.3	23.3	10.0	20.0	3.3	20.0	46.7	33.3	16.7	33.3	16.7					
20. How do you seek knowledge on your medications and their side-effects?	6	6	5	5	7	1	6	5	8	6	2	3	14	10	2	2	2	-	1	16	9	4	20.0	20.0	16.7	16.7	23.3	3.3	20.0	16.7	26.7	20.0	6.7	10.0	46.7	33.3	6.7	6.7	3.3	53.3	30.0	13.3

Table 3 (cont)

	Control Group												Experimental Group																																	
	Pre-test						Post-test						Pre-test						Post-test																											
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6																						
21. How do you seek knowledge on managing your medication regimen?	4	4	2	10	7	3	3	4	3	11	7	2	11	8	3	4	-	4	-	-	-	1	11	12	13.3	13.3	6.7	33.3	23.3	10.0	10.0	13.3	10.0	36.7	23.3	6.7	36.7	26.7	10.0	13.3	13.3	3.3	36.7	40.0		
22. How do you practice adjusting how to take daily medication regimen?	-	4	4	8	6	8	-	5	2	11	8	4	8	5	2	5	6	4	-	-	-	-	9	12	13.3	13.3	13.3	26.7	20.0	26.7	16.7	6.7	16.7	20.0	13.3	30.0	30.0	30.0	40.0							
23. How do you practice adjusting the doses of your medication?	1	3	4	6	9	7	1	2	5	8	11	3	11	4	1	5	3	6	-	-	-	-	10	11	3.3	10.0	13.3	20.0	30.0	23.3	3.3	6.7	16.7	26.7	10.0	33.3	16.7	33.3	36.7	30.0						
24. How do you adjust ways to prevent the side effects of your medication?	6	7	3	7	5	2	7	7	3	5	7	1	14	9	3	3	-	1	-	-	-	-	14	3	20.0	23.3	10.0	23.3	16.7	6.7	23.3	23.3	10.0	16.7	23.3	3.3	46.7	30.0	10.0	10.0	3.3	46.7	43.3	10.0		
25. How do you practice taking medication on your own?	3	2	3	4	6	12	2	2	5	5	7	9	4	1	2	5	5	13	-	-	-	-	3	4	10.0	6.7	10.0	13.3	20.0	40.0	6.7	6.7	16.7	16.7	23.3	30.0	13.3	3.3	6.7	16.7	16.7	43.3	10.0	13.3	13.3	76.7

	Control Group												Experimental Group																													
	Pre-test						Post-test						Pre-test						Post-test																							
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6																		
26. How do you practice managing the side effects of your medication?	13.3	13.3	20.0	16.7	16.7	16.7	20.0	33.3	16.7	16.7	6.7	6.7	13	7	4	2	2	2	43.3	23.3	13.3	6.7	6.7	6.7	1	2	3	4	5	6	1	2	3	4	5	6						
	20.0	13.3	13.3	20.0	16.7	16.7	20.0	33.3	16.7	16.7	6.7	6.7	43.3	23.3	13.3	6.7	6.7	6.7	43.3	23.3	13.3	6.7	6.7	6.7	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3						
Stress management																																										
27. How do you seek information on the effects of stress?	11	9	4	4	-	2	11	8	6	3	-	2	21	8	-	1	-	-	70.0	26.7	-	3.3	-	-	2	8	-	1	-	-	12	12	5	1	5	1	12	12	40.0	40.0	16.7	3.3
	36.7	30.0	13.3	13.3	-	6.7	36.7	26.7	20.0	10.0	-	6.7	70.0	26.7	-	3.3	-	-	70.0	26.7	-	3.3	-	-	40.0	40.0	16.7	3.3	16.7	3.3	40.0	40.0	16.7	3.3	16.7	3.3						
28. How do you seek knowledge on managing your stress?	13	4	6	3	3	1	14	4	8	2	1	1	22	7	1	-	-	-	73.3	23.3	3.3	3.3	3.3	3.3	2	7	1	-	-	-	16	10	3	1	3	1	16	10	53.3	33.3	10.0	3.3
	43.3	13.3	20.0	10.0	10.0	3.3	46.7	13.3	26.7	6.7	3.3	3.3	73.3	23.3	3.3	3.3	3.3	3.3	73.3	23.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3						
29. How do you seek knowledge on assessment of your stress level?	16	7	3	1	2	1	15	9	2	2	2	-	21	8	1	-	-	-	70.0	26.7	3.3	3.3	6.7	6.7	2	8	1	-	-	-	14	10	5	1	5	1	14	10	46.7	33.3	16.7	3.3
	53.3	23.3	10.0	3.3	6.7	3.3	50.0	30.0	6.7	6.7	6.7	6.7	70.0	26.7	3.3	3.3	3.3	3.3	70.0	26.7	3.3	3.3	6.7	6.7	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3						

	Control Group												Experimental Group																							
	Pre-test						Post-test						Pre-test						Post-test																	
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6												
30. How do you modify with your coping strategy?	17	5	4	2	2	-	16	7	4	2	1	-	22	8	-	-	-	-	16	10	4	-	-	-	56.7	16.7	13.3	6.7	6.7	3.3	73.3	26.7	13.3	6.7	3.3	13.3
31. How do you modify your resources for stress management?	18	4	3	3	2	-	16	7	3	2	2	-	19	10	1	-	-	-	16	10	4	-	-	-	60.0	13.3	10.0	10.0	6.7	6.7	63.3	33.3	3.3	3.3	3.3	13.3
32. How do you modify the ways to reduce your stress?	16	2	6	4	1	1	17	2	6	3	2	-	17	12	1	-	-	-	14	11	4	1	-	-	53.3	6.7	20.0	13.3	3.3	3.3	56.7	40.0	3.3	3.3	3.3	3.3
33. How frequent do you practice stress management?	16	7	3	2	2	-	18	6	3	1	2	-	17	12	1	-	-	-	13	13	4	-	-	-	53.3	23.3	10.0	6.7	6.7	6.7	56.7	40.0	3.3	3.3	43.3	13.3
34. How do you examine your stress level?	15	6	4	1	4	-	17	4	4	3	2	-	22	8	-	-	-	-	13	12	5	-	-	-	50.0	20.0	13.3	3.3	13.3	6.7	73.3	26.7	13.3	10.0	6.7	16.7

Table 3 (cont)

	Control Group										Experimental Group																										
	Pre-test					Post-test					Pre-test					Post-test																					
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%																			
35. How do you know how to manage when stress occurs?	15	50.0	5	16.7	2	6.7	3	10.0	-	13	43.3	9	30.0	1	3.3	2	6.7	19	63.3	10	33.3	1	-	1	-	14	46.7	12	40.0	4	13.3	-	-				
36. Personal hygiene How do you seek knowledge on the importance of having good personal hygiene?	1	3.3	5	16.7	9	30.0	6	20.0	20.0	1	3.3	4	13.3	5	16.7	7	23.3	11	36.7	2	6.7	2	6.7	4	13.3	8	26.7	2	6.7	30.0	26.7	6.7	23.3	33.3	33.3		
37. How do you seek knowledge on managing your personal hygiene for preventing diabetes complications?	2	6.7	5	16.7	3	10.0	7	23.3	20.0	2	6.7	4	13.3	4	13.3	8	26.7	7	23.3	6.7	20.0	2	6.7	2	6.7	10	33.3	3	10.0	10	33.3	4	13.3	10	33.3		
38. How do you practice adjusting your routine for good personal hygiene?	1	3.3	8	26.7	9	30.0	2	6.7	30.0	2	6.7	2	6.7	8	26.7	6	20.0	9	30.0	3	10.0	7	23.3	5	16.7	3	10.0	20.0	20.0	13.3	16.7	5	16.7	8	26.7	9	30.0

Table 3 (cont)

	Control Group												Experimental Group												
	Pre-test						Pre-test						Post-test						Post-test						
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	
39. How do you pay attention on your personal hygiene?	-	2	5	8	7	8	-	2	7	7	6	8	5	7	2	4	5	7	-	-	-	-	-	8	16
	6.7		16.7	26.7	23.3	26.7	6.7		23.3	23.3	20.0	26.7	16.7	23.3	6.7	13.3	16.7	23.3						26.7	20.0
40. How do you adjust yourself for better oral care?	3	3	4	5	8	7	2	3	4	5	8	8	14	6	3	2	1	4	-	-	-	-	2	7	7
	10.0	10.0	13.3	16.7	26.7	23.3	6.7	10.0	13.3	16.7	26.7	26.7	46.7	20.0	10.0	6.7	3.3	13.3					6.7	23.3	23.3
42. How do you practice your perineal care?	4	1	2	6	10	7	3	1	4	5	9	8	6	2	7	6	4	5	-	-	-	-	5	8	17
	13.3	3.3	6.7	20.0	33.3	23.3	10.0	3.3	13.3	16.7	30.0	26.7	20.0	6.7	23.3	20.0	13.3	16.7					16.7	26.7	56.7
43. How do you practice your oral care?	4	4	1	9	7	5	2	5	2	7	8	6	7	7	5	5	2	4	-	-	-	-	6	8	16
	13.3	13.3	3.3	30.0	23.3	16.7	6.7	16.7	6.7	23.3	26.7	20.0	23.3	23.3	16.7	16.7	6.7	13.3					20.0	26.7	53.3
44. How do you practice taking care of your feet?	1	5	4	5	8	7	-	4	8	5	5	8	5	5	4	7	3	6	-	-	-	-	7	8	15
	3.3	16.7	13.3	16.7	26.7	23.3	13.3	26.7	16.7	16.7	16.7	26.7	16.7	16.7	13.3	23.3	10.0	20.0					23.3	26.7	50.0



APPENDIX D  
SUPPORTIVE-DEVELOPMENTAL NURSING CARE  
PLAN

### Supportive-Developmental Nursing Plan for Person with Type 2 Diabetes.

Session	Group Teaching	Guiding	Supporting	Providing Environment
<p>First session (1<sup>st</sup> visit) Place: Diabetes Clinic Time: 1 hours</p>	<p>Introduction:  Good morning. For the first session of teaching, I would like to emphasize on information of Type 2 diabetes and guidelines for dietary control. The information will enhance your self-care capabilities and practice for controlling the disease. This session will offer practical information on becoming manager or owner of your own health. Adequate attention to self-care practice will promote optimal productivity, satisfaction, and quality of your life. In addition, other methods of helping, i.e. guiding, supporting, building relationship, and providing environment for promoting your self-</p>	<p>After patient assessment, instructor will guide the patients to carry out the knowledge they have into practice.</p> <ol style="list-style-type: none"> <li>1. Listen and ask about health problems, and feeling.</li> <li>2. Answer to the common questions as in the following examples:               <ol style="list-style-type: none"> <li>1. Can Type 2 diabetes be cured?  There is no cure for diabetes however Type 2 diabetes can be a well managed diabetes, by</li> </ol> </li> </ol>	<p>Based on questions asked, instructor will provide appropriate support so that patients can accept and feel confident to manage themselves.</p> <ol style="list-style-type: none"> <li>1.1 Provide reassurance by answering the questions with a smile and speak softly. Tell them such as, 'you need time to adapt and adjust to your illness'.</li> <li>1.2 Give comfort to the</li> </ol>	<ol style="list-style-type: none"> <li>1. Provide quiet and conducive room with good ventilation equipped with air condition, comfortable, and soft chairs.</li> <li>2. Provide with drinks.</li> <li>3. Researcher will do self introduction to participants.  Give participant</li> </ol>

Session	Group Teaching	Guiding	Supporting	Providing Environment
	<p>care practice through seeking information, making decision operating your self-care activities will be integrated.</p> <p>Module 1: Introduction to Diabetes Mellitus.</p> <p>Before the teaching session, instructor will assess patient's background knowledge on diabetes, how are their perception and what motivates them to come to the hospital.</p> <p>1.1 What is diabetes.</p> <p>Diabetes is a chronic disease in which the body makes little or no insulin, or is unable to use the insulin it makes.</p> <p>1.3 Type 2 diabetes.</p> <p>High blood glucose arises despite initial abundance of the hormone insulin. These individuals have high levels of insulin yet their cells</p>	<p>keeping the blood glucose as close to normal as possible to minimize the risk of complications, such as hyperglycemia or hypoglycemia.</p> <p>2. I am newly diagnosed of Type 2 diabetes, am I at risk for skin problem? Diabetes can affect certain parts of the body, including the skin. A lot of people with diabetes do have skin problems, however, if detected early it can be prevented or easily treated.</p> <p>Uncontrolled blood glucose level may promote</p>	<p>patient if she/he feels upset that Type 2 diabetes is incurable. Touch their hand to calm them. Allow to express their feeling, give positive answer e.g. although diabetes is incurable, but if the patient manage to control it, they can lead a normal life.</p> <p>1.3 Explain clearly in simple term so that patient can understand, and that patient can live a normal life as long as patient can manage and control his/her diabetes.</p>	<p>A chance to introduce themselves such as name, age and brief history of each other.</p> <p>4. Sit together in a circle such as informal teaching. Not only can see each other but may infer the participants</p>

Session	Group Teaching	Guiding	Supporting	Providing Environment
	<p>resistance is high. Therefore they can develop a deficiency of insulin.</p> <p>1.4 Causes of Type 2 diabetes</p> <ul style="list-style-type: none"> <li>● Type 2 diabetes occurs when your body responds inefficiently to the hormone insulin, which regulates blood sugar</li> <li>● Insulin resistance can be a risk factors for Type 2 diabetes</li> </ul> <p>The risk for diabetes increases with age for Type 2 diabetes. The vast majority of people with Type 2 diabetes are obese</p> <ul style="list-style-type: none"> <li>● Hypertension is also a risk factor for Type 2 diabetes having diabetes during pregnancy, having delivered a large baby (more than 9 pounds) or having impaired glucose</li> </ul>	<p>skin problem at the perineal area, especially for women such as vaginal irritation.</p> <p>3. Do we have to follow diabetes meal plan?</p> <p>People with diabetes should have a balanced diet. By eating a balanced diet consisting of vegetables, protein, and carbohydrate, you can keep your blood glucose level as close to normal (non-diabetes level) as possible. When you make healthy food choices, you will improve</p>	<p>2.1 Provide reassurance. Speak softly, and tell them such as, ‘you need to adjust your time when is convenient for you to come for a check-up.</p> <p>2.2 Explain clearly in simple terms so that patient can understand, and that patient can live a normal life as long as patient to manage and control her/his diabetes.</p> <p>2.3 Provide reassurance. Speak softly, and tell them such as, you need time to adapt and adjust</p>	<p>through facial expression to assess happiness or sadness.</p>

Session	Group Teaching	Guiding	Supporting	Providing Environment
	<p>tolerance increases your chances of developing Type 2 diabetes.</p> <p>1.4 Symptoms of Type 2 diabetes.</p> <ul style="list-style-type: none"> <li>● Frequent urination</li> <li>● Thirsty</li> <li>● Lethargy</li> <li>● Delay wound healing</li> </ul> <p>1.5 Can diabetes be cured?</p> <p>Diabetes is incurable however it can be controlled by diet, exercise, and insulin injection or medication.</p> <p>1.6 Can diabetes be prevented?</p> <p>Diabetes can be prevented by maintaining ideal body weight based on height and body mass index, taking high fiber food and exercising.</p> <p>1.7 Complications of Type 2 diabetes mellitus:</p> <ul style="list-style-type: none"> <li>● Renal failure</li> </ul>	<p>your overall health.</p> <p>4. How to do when eating out?</p> <p>Not everyone with diabetes has the same meal plan or the same nutrition goals. For other diabetes, cutting calories is the most important. Others may need to limit fat and salt, and eat more high fiber food. It can be plan ahead, choose wisely, and you will find and enjoy your food for that day and fit into your meal plan. Many restaurants are trying to meet diners' health</p>	<p>to your meal plan.</p> <p>2.4 Give comfort by touching their hands to calm them. Allow time for them to express their feeling, give positive answer, e.g., although following the meal plan is difficult however if practice it everyday, they will improve themselves towards meal planning.</p> <p>3.1 Explain clearly in simple term about the meal plan so that patients could understand, and that patient can live a</p>	

Session	Group Teaching	Guiding	Supporting	Providing Environment
	<ul style="list-style-type: none"> <li>● Heart failure</li> <li>● Retinopathy</li> <li>● Neuropathy</li> <li>● Skin problem</li> <li>● Foot ulcer</li> <li>● Problem in sexual activity</li> </ul> <p>Module 2: Guidelines for diabetic diet</p> <p>A balanced diet, consisting of vegetables, protein, carbohydrates is the main factor that control blood glucose level.</p> <p>The goal of dietary control are:</p> <ul style="list-style-type: none"> <li>● Maintain blood glucose level as close to normal (80-120 mg%)</li> <li>● Appropriate calories intake in order to control blood sugar.</li> <li>● Prevent diabetes complications</li> </ul>	<p>needs. Eating out can be one of life's great pleasures. Make the right choices, ask for what you need. You can enjoy yourself and take good care of your diabetes at the same time.</p> <p>5. How do we know that our weight is at normal level?</p> <p>Weight reduction can help to control your diabetes. Unfortunately, it is difficult to sustain, however you may weigh yourself once a month or every six month to know your actual</p>	<p>normal life as long as patient manages and controls his/her diabetes.</p> <p>5.1 Provide reassurance by answering the questions with smile and speak softly. Tell them such as, 'you need to record every time your weigh.</p> <p>5.2 Explain clearly and use simple term so that patients can have his/her favorite food and live normal life as long as patient is able to manage and control his/her ideal body weight. Your ideal</p>	

Session	Group Teaching	Guiding	Supporting	Providing Environment
	<p>Diet with enough calorie count. The foods must consist all 5 groups of nutrients as follows:</p> <p><i>Carbohydrate</i></p> <p>One should select the food which delays hyperglycemia and have a lot of fiber such as rice, noodle. Patients should avoid sweets such as dessert and soft drinks, because it contain too much sugar. Diabetes patients can eat rice, noodle, glutinous (without coconut milk) as usual but they have to select only one type of carbohydrate per meal.</p> <p><i>Protein</i></p> <p>Diabetes patients can eat meat but the meat should be low fat without the skin and fatty parts. Patients can eat shrimp and crab but can't eat extra fat. Patients can eat 2-3 eggs a week. If they do not eat egg yolks, they can eat</p>	<p>weight.</p> <p>6. I am an obese person, can diabetes go away if I lose weight? It can go away if the diabetes has not existed for too long, because there is actually still enough insulin for a person of normal of normal weight. The tendency to get diabetes remains for life.</p>	<p>body weight depends on your height. Your waist size also gives a rough idea, the longer the distance around your tummy the greater the risk to your health. The useful way of finding out whether your weight is suitable for your height your have to calculate your body mass index using this formula:</p> <p>BMI = Weight in kilograms/(Height in meters)<sup>2</sup>. For examples, if you are 6ft tall (1.83 metres) and 75.3 kilograms in weight, then your BMI is as</p>	

Session	Group Teaching	Guiding	Supporting	Providing Environment
	<p>egg everyday. The patients had better take more fish particularly sea fish. Moreover, patients should take tofu and avoid liver, heart, and lung of any animals. The amount of protein intake can be as usual except for patients who have renal problem must reduce protein caloric intake.</p> <p><i>Fat</i></p> <p>Fat is a nutrient which the patients need some on their diet. But too much fat isn't good for anyone. It can be very harmful to people with diabetes. Patients should avoid all fried food. They should cook by baking, boiling and steaming. If they want to use any oil for cooking, they should use vegetable oil and do not use coconut oil.</p>		<p>follows:</p> <p><math>BMI = 75.3 / 1.83^2 = 22.48</math></p> <p>This number will interpret base on the below range.</p> <p>Underweight &lt; 19.1 F &lt; 20.7 M</p> <p>Ideal weight 19.1 to 25.8 F 20.7 to 26.4 M</p> <p>Overweight 27.3 to 32.2 F 27.8 to 31.1 M</p> <p>6.1 Provide reassurance, answer the question with smile and speak softly, and tell them such as, your diabetes may go away if you loses weight</p>	



Session	Group Teaching	Guiding	Supporting	Providing Environment
	<p><i>Vegetables and fruits</i></p> <p>Diabetics should eat vegetables, because it has more fiber. Vegetables are low carbohydrate. A diet containing high dietary fiber is thought to delay digestion and absorption in the upper gastrointestinal tract. These fibers may help slow sugar absorption which results in hypoglycemia after meal. The amount of calories intake are not limited. Fruits should be plain such as orange, papaya, watermelon, and guava. They should stop taking sweet fruits such as durian, longan, jack fruits, sugar cane, sweet tamarind, and dry fruits such as raisins, apricots and apples. Due to the fact that dry fruits contain high sugar which is easy for the body to absorb and results in hyperglycemia. Moreover, diabetes patients should avoid salty food. Diabetes patients who take alcohol and</p>		<p>but reducing weight is not necessary in two days.</p> <p>You still have to maintain a well balance diet.</p>	

Session	Group Teaching	Guiding	Supporting	Providing Environment
	<p>guava. They should stop taking cannot control their body weight. Alcohol inhibits hepatic gluconeogenesis. Therefore the person with diabetes might faint due to hypoglycemia. If they still need an alcohol women should drink no more than a drink per day and men no more than two drinks a day. Do not drink alcohol with an empty stomach. It can cause very low blood glucose.</p>			

**Supportive-Developmental Nursing Plan for Person with Type 2 Diabetes.**

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
<p>Second session (2<sup>nd</sup> visit)                      Place: Diabetes Clinic                      Time: 1 hours</p>	<p>Introduction:                      Hello everybody, nice to meet you again. For the second session, we are going to have more learning on performing exercise and following medication regimen to control your diabetes. As we know, exercise is extremely important in managing diabetes because of its effects on lowering blood glucose and without following medication regimen, your diabetes control would not be effective. This session will also promote your capabilities on using exercise and medication to control your health problems. In addition, your questions or requests both from previous module or this session will be responded through our discussion. Other methods of helping, i.e. guiding, supporting, and providing environment for promoting your self-care practice will be used to promote your</p>	<p>7. What kinds of exercises are appropriate for diabetes patient?                      Exercise is known as physical activity and includes anything that gets you moving, such as walking, dancing, or working in the yard. If you do it freely you will get the benefits of being physically active without going to a gym, playing sports, and using fancy equipments. When you're physically fit, you will have the strength, flexibility, and endurance</p>	<p>7.1 Provide reassurance using a word such as 'some of you will probably know a simple exercise, but I'll talk about it briefly'.                      7.2 Explain clearly about simple terms of exercise so that patients could understand, as long as patients can do regularly, continuously, and does not burden to the them.</p>	

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<p>capabilities on seeking information, making decision, and operating your self-care activities as the previous session.</p> <p>Module 3: Exercise</p> <p>Instructor asks patient about their condition, health and their previous experience at home. Did they encountered problems and difficulties. Instructor asked patients if they have further questions regarding the previous education. Every diabetes should try to exercise. There are two types of exercises, isotonic and isometric. Both are good ways of controlling glucose, however Isotonic is the best for cardiovascular system.</p> <p>Examples of Isotonic exercise are:</p> <ul style="list-style-type: none"> <li>● Brisk walking</li> <li>● Jogging</li> <li>● Cycling</li> <li>● Running</li> </ul>	<p>needed for your daily physically active helps you feel better physically and mentally.</p> <p>8. Do I get hypoglycemia on tablet therapy?</p> <p>Taking tablets to help control your blood glucose level then you need to eat regular meals and make sure that you take your tablets at the times prescribed.</p> <p>However if problem happen take a sugary drink or some sweets. Then eat a starchy snack, such as a sandwich.</p>	<p>8.1 Provide reassurance by touching and explain clear about simple term of hypoglycemia so that patient understand, and can prevent the complication such as hunger, sweating, trembling blurring of vision or headaches.</p> <p>8.2 Advice them again to always take the tablets at the prescribed time, do not take more than prescribed and adhere to the meals.</p>	

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<ul style="list-style-type: none"> <li>● Playing Tennis</li> <li>● Callisthenic</li> </ul> <p>In addition, some work such as digging, cleaning the house, moving, bicycling, and watering plants, are part of isotonic exercise,</p> <p>Isometric exercise include as following:</p> <ul style="list-style-type: none"> <li>● Body building</li> <li>● Pumping with stretching legs</li> </ul> <p>Exercise is good for people with diabetes.</p> <p>Because resgular exercise burns calories that your body may store as extra weight. Exercise helps the patients' control their diabetes. In addition, exercise helps to reduce some stress and helps the patients to sleep well. The suitable exercise for diabetics patients should be continued exercise such as jogging, walking aerobic, and bicycling which should be done at least 3 times a week or every two days. Patient should spend at least 20 – 30 minutes of exercising for each session.</p>			

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<p>Starting with slow and gentle warm up to get the heart and muscles prepared to exercise. Keep muscles and joints stretching for about 5- 10 minutes. Exercise for about 5-10 minutes and end your exercise with a cool down for another 5-10 minutes to help breathing become normal. If you are not an active person, simple foot exercise as illustrated in page 14 helps to get you started.</p> <p>Module 4: Medication taking.</p> <p><i>Oral hypoglycemic agents.</i></p> <p>Administering an oral hypoglycemic agents must be practice regularly at the right time, with right dose. Patients should not increase or reduced the dose on their own without consultation from the doctors. Sulphonylureas effect on lowering blood sugar. Adverse drug effects are infrequent, the incidence being approximately 3% to 5%. Side effects are hypoglycemia, nausea, vomiting, weight, rash,</p>			

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<p>and photosensitivity. Daonil works by stimulating pancreatic beta cells. The elevated blood glucose requires increased amounts of insulin which is consumed by the tissue in the cell. Patients should administer this drug 30 minutes before meals. If patients forget to take before meal then the correct advice is take the tablet after meal or with meal.</p> <p>Biguamides groups, i.e., metformin which reduces the absorption of glucose from the intestine, inhibits the production of glucose by the liver, and enhance insulin action on the tissues. The drug should be taken with meal. Side effects are nausea, vomiting, flatulence, diarrhea, metallic taste, and anorexia.</p> <p><i>Insulin</i></p> <p>What is insulin?</p> <p>Insulin is a hormone that is usually made in little islands of special cells in the pancreas (Islets of Langerhans) from where it is</p>			

	Group Teaching	Guiding	Supporting	Providing environment
	<p>released into the blood.</p> <ul style="list-style-type: none"> <li>● How is insulin administered? Insulin can be administered through injection. What is the proper way to inject the insulin?</li> <li>● The aim is to get the injection into the layer of fat which lies below the skin and above the muscle using short (3/8-1/2 inch) needles inject almost vertically. There are certain effects of insulin. Onset time-This is the delay from the moment of injection to the time the injected insulin starts to lower the blood glucose. Duration of action - This is the period for which the injected insulin continues to have any effect. Peak of action - This is the time from the injection before the insulin reaches its maximal effect.</li> <li>● How to keep the insulin? Insulin should be kept in a cool place such as refrigerator (maximum 25°C but not in</li> </ul>			



	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<p><b>the freezer.</b></p> <p><b>Avoid from the sunlight.</b></p> <p><b>Away from children.</b></p>			

## Supportive-Developmental Nursing Plan for Person with Type 2 diabetes.

Session	Group Teaching	Guiding	Supporting	Providing environment
<p>3<sup>rd</sup> session (3<sup>rd</sup> visit)</p> <p>Place: Diabetes Clinic</p> <p>Time: 1 hours</p>	<p>Introduction:</p> <p>Today we are going to have more learning on handling special occasion such as fasting month, traveling, and arranging diabetes complications, such as hypoglycemia and hyperglycemia. In addition using glucometer for monitoring your blood sugar will be emphasized. This session will also practically promote your capability on prevention of the diabetes complications. Furthermore, your questions or requests from previous modules will be responded through our discussion.</p>	<p>9. How do I care for my diabetes during traveling?</p> <p>Go wherever your heart leads you. Just remember that you take your diabetes with you. Take your self-care along, too. No matter what kind of diabetes you have its smart to watch what you eat and drink when traveling and don't forget to check your blood glucose level.</p>	<p>9.1 Provide reassurance such as speak softly and clearly, and use simple terms about how to manage during this period in order for them to have an enjoyable time as non diabetes person.</p> <p>9.2 Provide reassurance such as speak softly and clearly, and use simple terms on how to manage during this period.</p>	

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<p>Module 5: Management of diabetes.</p> <p>Instructor asks patients about their condition, health and their previous experience at home. Did they encountered problems and difficulties.</p> <p>Instructor asked patient if they have further questions regarding the previous education.</p> <p>1. Fasting month</p> <p>Diabetes patients may fast during fasting month. However, if any contraindications arise consult your doctor.</p> <p>2. Traveling</p> <p>Plan and seek advice from your doctor if necessary before traveling. Bring enough equipment For own care of diabetes. Make</p>	<p>10. Do I have to check my glucose level during sickness?</p> <p>While you are coping with your sickness, you have to pay extra attention to diabetes care. During this period most people have poor appetite. It is better to follow your meal plan as possible and not to forget to check your glucose by using a glucometer.</p>	<p>10.1 Provide reassurance such as speak softly and clearly, and using simple term about how to manage or monitoring, in order to prevent further complication.</p> <p>11.1 Provide reassurance such as speak softly and clearly, and using simple term about how to manage or monitoring, in</p>	

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<p>sure you can get your supply or at your destination. Don't forget to bring your medicine identity card or 'medic alert'.</p> <p>3. Social function</p> <p>Adjust your meal plan ahead by eating a light snack before going in case the function starts a bit late. Choose correct food according to your meal per day.</p> <p>4. Pregnancy</p> <p>Diabetes patients should plan their pregnancy and tell them about some consequences such as deformed baby and abortion.</p> <p>5. Sickness</p> <p>Please contact your doctor if you are sick. Drink a lot of water and if alteration of insulin is given by the</p>	<p>11. Why monitoring of glucose level is important?</p> <p>The future health of the diabetes patient with diabetes, both from day to day and in the long-term, depends on the degree with which the blood glucose is controlled. It is important to monitor the glucose to reduce the risk of complication of vision, kidney problem, blood circulation and heart disease.</p>	<p>order to prevent further complication.</p> <p>12.1 Provide reassurance such as speak softly and clearly, and sing simple term about how to manage or monitoring, in order to prevent further complication.</p>	

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<p>doctor, make sure to adhere to it.</p> <p>6. Before operation. Before under going for any operation please inform your doctor that you are a diabetes patient.</p> <p>Module 6: Monitoring diabetes</p> <ul style="list-style-type: none"> <li>Monitoring level of glucose in the blood by using glucometer or dipstick. Advantages of blood glucose testing. It gives more accurate reading of glucose level in the blood compared to urine.</li> <li>Tells the actual level of the blood glucose at a particular time. Before lunch – 4.7 mmol/L Post meal – less 10 mmol/L Bedtime – 6 mmol/L</li> </ul>	<p>12. How can I prevent from hypoglycaemia, hyperglycaemia and ketoacidosis?</p> <p>Diabetes is a chronic and systemic disease that can trigger life-changing complications in virtually every system of the body, but with good self-care and preventive strategies, you can be as non diabetes person.</p> <p>Eventually, you are in charge of your own healthcare, so put a little attention to how</p>		

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<ul style="list-style-type: none"> <li>● It is a definite way to diagnose a low blood glucose</li> <li>● A sequence of blood tests show the effect of a meal on the blood glucose over a short time, e.g. an hour or two.</li> </ul> <p>Module 7: Complications of Diabetes Mellitus.</p> <p>7. Hypoglycaemia Blood glucose lower than normal level. It can happen because of the following factors:</p> <p>8. Never follows the schedule for meal plan. A person with diabetes eats too little, too late or not late or not at all.</p> <p>9. Stress</p>	<p>food, and lifestyle choices impact your glucose level on the goal of controlling your diabetes.</p> <p>13. What should I do when getting hypoglycemia/hyperglycemia? Each conditions can be Treated by measuring the level of blood glucose. If untreated, hypoglycemia can lead to confusion, coma or convulsions. Hypoglycemia often comes</p>		

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<p>10. A sudden increased in unplanned physical activity without having any light snack.</p> <p>11. Symptoms of hypoglycaemia:</p> <ul style="list-style-type: none"> <li>Hunger</li> <li>Sweating</li> <li>Trembling</li> <li>Blurring of vision</li> <li>Headache</li> <li>Prickling sensation on the tongue</li> </ul> <p>12. Symptoms of hyperglycemia</p> <ul style="list-style-type: none"> <li>Blood glucose over 240 mg/dl</li> <li>More urine output than usual</li> <li>Increased thirst</li> <li>Dry skin and mouth</li> <li>Decreased appetite, nausea, or vomiting.</li> </ul>	<p>within minutes.</p> <p>If you have a hypoglycemic reaction, you should treat it immediately by eating some form of carbohydrate (sugar). Have something like glucose tablets or sugar cubes with you at all times and take at the first sign of a reaction. Your body needs fast-acting sugar at that time. Instead of hyperglycemia reaction, think about why the reaction happened.</p> <p>Perhaps your meal was</p>		

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	<p>13. Ketoacidosis: is developing when you have</p> <ul style="list-style-type: none"> <li>a. Persistent blood glucose levels over 15 mmol/L</li> <li>b. Persistent urine tests of 2 % glucose or more</li> <li>c. Increasing ketones in urine</li> <li>d. Increasing thirst</li> <li>e. Increasing frequency of micturition</li> <li>f. Weight loss – i. e. dehydration</li> <li>g. Nausea and tiredness</li> <li>h. Vomiting</li> <li>i. Drowsiness</li> </ul>	<p>late, you got too much exercise or you took your medication at a different time. Very often, reactions can be avoided by closely following your treatment plan and don't forget to test blood for glucose and urine for ketones every two hours.</p>		



	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
	Individual teaching	<p>14. Does diabetes cause problem in sexual activity?</p> <p>Uncontrolled blood glucose level may disturb overall health.</p> <p>For women it will promote infection and vaginal irritation, vascular restore the blood flow to the vagina, which cause vaginal dryness, and interfere with arousal (low estrogen level can also cause lubrication problem), However, with adjustment in medications, maintain</p>	<p>14.1 Provide reassurance by touching and comfort. Give them time to speak, not rushing.</p> <p>14.2 Explain clearly and in simple term on how to manage normal activity.</p> <p>14.3 Allow patients to express their dissatisfaction or any emotional feeling related to sexual activity.</p>	

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
		<p>exercise, and diet will bring your glucose levels back to normal sexual activity. For the men there are several options in the treatment of erectile dysfunction</p> <p>15. Can diabetes lead to stress?</p> <p>Every body have their own problem, if we fight the illness, the happiness will come back. There is no specific relation between diabetes and stress, but ill health is a common trigger for stress.</p>	<p>15.1 Allow patient to express feelings of insecurity, or sadness.</p> <p>15.2 Try to answer patients question clarify doubts about own illness or personal problem.</p> <p>15.3 Give comfort by touching and explain clearly with simple terms on how to overcome problem.</p>	

	<b>Group Teaching</b>	<b>Guiding</b>	<b>Supporting</b>	<b>Providing environment</b>
		<p>Therefore many illnesses may be associated with stress. Perhaps treating and confronting the factors may better tackle depression associated with problems or exacerbated by worries.</p>		

APPENDIX E  
GUIDELINES FOR DIABETES PATIENT

# PANDUAN PENDIDIKAN UNTUK PESAKIT DIABETES



Diterbitkan Oleh:  
Unit Epidemiologi-NCD  
Jabatan Kesihatan Negeri Kelantan



# Modul 1

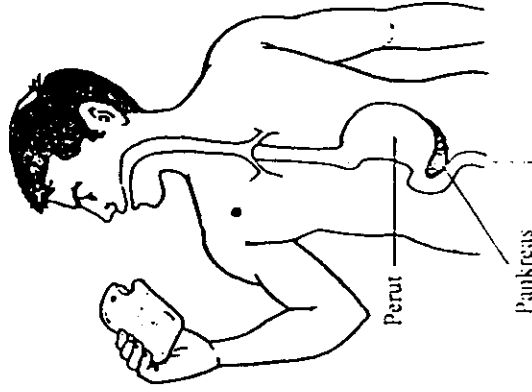
## PENGENALAN PENYAKIT DIABETES

### 1. Apakah dia Diabetes?

Diabetes mellitus (Diabetes) merupakan satu gangguan di mana bader. tidak dapat menggunakan karbohidrat (gula dan kanji) dengan sempurna dalam pemakanan.

Selepas penghadaman, gula dan kanji menjadi glukosa. Glukosa disalurkan di dalam darah ke seluruh bahagian badan di mana insulin membantu glukosa masuk ke dalam sel badan untuk digunakan sebagai tenaga.

Insulin dikeluarkan ke dalam darah oleh pankreas. Apabila tidak terdapat insulin asli yang mencukupi di dalam badan akibat pankreas yang kurang berfungsi dengan memuakan atau tindakan insulin tidak berkesan, glukosa yang tidak di gunakan akan terkumpul di dalam darah dan akhirnya mengalir melalui buah pinggang dan keluar ke dalam air kencing.



### 2. Apakah Jenis Diabetes?

Terdapat Dua jenis :

#### Diabetes jenis I : **DIABETES MELLITUS YANG BERGANTUNG KEPADA INSULIN**

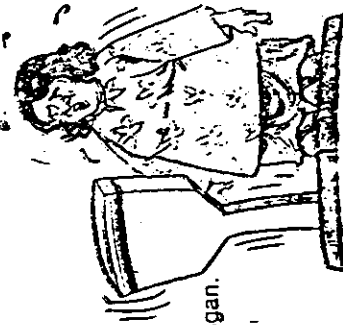
- Tiada Insulin dalam badan
- Biasanya wujud di kalangan kanak-kanak dan belia
- Ianya boleh dikawal dengan suntikan insulin, diet dan senaman.
- Biasanya berlaku tidak mengikut keturunan.
- Biasanya tidak mempunyai riwayat keluarga yang kuat.

- Terdapat hormon insulin tetapi kurang berkesan lalu terdapat rintangan. Biasanya berlaku di kalangan orang dewasa dan individu yang mempunyai berat badan yang berlebihan.
- Ia boleh dikawal melalui diet dan senaman atau gabungan diet, senaman dan ubat.
- Jika salah seorang ibu atau bapa mempunyai Diabetes, kemungkinan untuk mendapat Diabetes adalah lebih tinggi.
- Jika kedua-dua ibu dan bapa mempunyai Diabetes kemungkinan mendapat Diabetes semakin meningkat.

### 3. Apakah yang menyebabkan Diabetes?

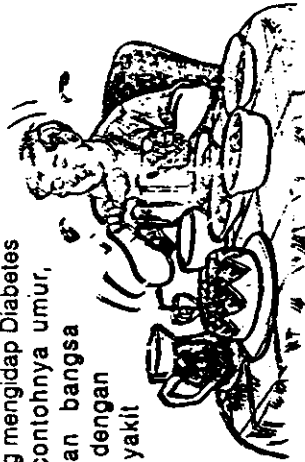
Diabetes mungkin ada hubungan dengan keadaan berikut :-

- Kelurutan
- Berlebihan berat badan
- Mengandung
- Ubat-ubatan
- Umur yang meningkat
- Selepas satu penyakit yang serius, pembedahan atau kemalangan.



### 4. Apakah faktor risiko Diabetes?

- Berat badan yang berlebihan
- Tidak aktif secara fizikal
- Faktor pemakanan
- Sejarah keluarga yang mengidap Diabetes
- Faktor-faktor lain contohnya umur, kumpulan etnik dan bangsa selalunya dikaitkan dengan risiko terhadap penyakit Diabetes.



Gejala-gejala Diabetes adalah :-

- Kerap kencing
- Dahaga dan lapar yang berlebihan
- Terasa letih dan lesu
- Luka yang tidak sembuh
- Susut berat badan walaupun berselera makan
- Gatal pada kulit dan kemaluan (vagina)
- Bayi yang besar
- Gejala komplikasi Diabetes

**INGAT : Tidak semua pengidap Diabetes mempunyai gejala-gejala ini.**

### 6. Adakah Diabetes boleh disembuhkan?

Diabetes tidak boleh disembuhkan. Walau bagaimanapun ianya boleh dikawal supaya anda boleh hidup sihat dan bermakna.

Kawalan Diabetes yang baik boleh dicapai melalui :-

- Diet dan senaman
- Diet, ubat antidiabetik yang dimakan dan senaman atau
- Diet, suntikan insulin dan senaman

Pemeriksaan yang mengikut jadual dan ujian darah dan air kencing adalah perlu untuk mengawasi kejayaan langkah-langkah ini.

Kawalan Diabetes yang baik adalah penting dalam pencegahan sesetengah komplikasi.

Di dalam pengurusan Diabetes, faktor risiko yang ada hubung kait dengan penyakit-penyakit kardiovaskular hendaklah diambil kira. Faktor ini termasuklah merokok, kegemukan, tekanan, hiperlipidemia, kurang senaman, darah tinggi dan lain-lain.

### 7. Bolehkah Diabetes dicegah?

Diabetes terutamanya Diabetes Jenis II, biasanya dikaikan dengan berat badan yang berlebihan yang boleh dicegah dengan :-

- Mempunyai berat badan yang unggul
- Makan makanan yang sihat
- Bersenam selalu

Diabetes yang tidak dikawal boleh mengakibatkan komplikasi yang teruk seperti masalah buah pinggang, darah tinggi, sakit jantung, kurang penglihatan, edaran darah yang perlahan dikaki, gangguan sistem saraf dan jangkitan kulit dan sebagainya.

**1. Kerosakan Buah Pinggang (Diabetes Nephropathy)**

Penyakit diabetes yang tidak dikawal menyebabkan gula yang berlebihan dikeluarkan dari badan oleh buah pinggang. Ini menyebabkan glukosa yang berlebihan di dalam air kencing dan dengan itu membatalkan buah pinggang dan pundi kencing lebih terdedah kepada jangkitan. Jangkitan buah pinggang yang berulang akan menyebabkan kerosakan dan masalah lain seperti lemah buah pinggang. Walau bagaimanapun kawalan diabetes yang kurang baik dengan sendirinya boleh membawa kepada kerosakan buah pinggang dalam bentuk lain iaitu pengeluaran protin yang berlebihan di dalam kencing.

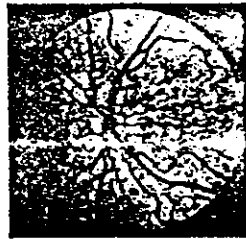
**2. Sakit Jantung dan Angin Ahmar (Stroke)**

Diabetes yang tidak terkawal dikaitkan dengan paras kolesterol yang tinggi dan menyebabkan penyempitan saluran darah. Ini kemudiannya menyebabkan kekurangan pengaliran darah ke jantung dan kemudiannya menyebabkan serangan sakit jantung. Kekurangan darah ke otak boleh menyebabkan angin ahmar.



**3. Kerosakan Mata**

Bagi kes Diabetes yang tidak terkawal, saluran darah di mata menjadi rosak. Ini boleh menyebabkan penglihatan yang kabur, katarak, glukoma atau buta. Komplikasi penyakit mata bagi pesakit Diabetes boleh dicegah melalui kawalan Diabetes yang baik dan lawatan ulangan dengan doktor secara berjadual dengan merujuk kepada pakar oftalmologi jika perlu.



Diabetes yang tidak terkawal menyebabkan kerosakan saraf badan. Ini biasanya menyebabkan kebas dan hilang sensasi pada tangan dan kaki. Akibatnya, tangan dan kaki lebih terdedah kepada kecederaan dan jangkitan.

**5. Kulit**

Glukosa yang berlebihan di dalam badan boleh menyebabkan jangkitan yang lebih kerap pada kulit seperti bisul, pekung dan jangkitan kulit. Kebanyakan komplikasi pada kulit disebabkan luka dan kebersihan diri yang tidak sempurna dan ini boleh diatasi dengan langkah-langkah pencegahan.

**6. Ulcer Kaki**

Pengawalan Diabetes yang tidak baik boleh menyebabkan kerosakan di kaki kerana pengurangan bekalan darah boleh merosakan saraf dan menyebabkan jangkitan. Kebanyakan dari faktor ini terjadi disebabkan oleh luka pada kaki akibat penggunaan kasut yang tidak sesuai dan sebagainya. Untuk mencegah komplikasi kaki diabetes, adalah penting untuk mewujudkan satu rutin harian penjagaan kaki. Ini termasuk pemeriksaan kaki (termasuk tapak), pembersihannya, penjagaan kulit, pencegahan dan rawatan cedera ringan oleh doktor atau jururawat yang berpengalaman, pemakaian kasut yang sesuai dan lembut setiap hari dan sebagainya.



- Awasi semasa penggunaan air panas sebab kepanasannya mungkin tidak dapat dirasa oleh pesakit diabetes.
- Potong kuku dengan cermat
- Jangan menyalurkan kaki
- Untuk masalah 'Callus', sila jumpa doktor supaya dapat dirujuk kepada pakar kulit.



## RANDUAN DIET DIABETES

Diet merupakan aspek penting dalam kawalan penyakit diabetes. Diet diabetes pula merupakan makanan seimbang yang mengandungi bahan untuk membekalkan tenaga dan semua khasiat makanan yang perlu untuk membina dan memelihara badan yang sihat.

### Perbezaan yang ketara ialah, DIET DIABETES

- Mengelakkan makanan bergula dan karbohidrat bertapis yang mengandungi kandungan gula yang sangat tinggi.
- Makanan ini boleh menaikkan paras gula darah yang tinggi dan boleh mengakibatkan diabetes anda sukar dikawal
- Makanan berprotein dan berlemak perlu diambil dalam kuantiti yang sederhana.
- Lemak mengandungi sumber tenaga yang tinggi dan jika dimakan berlebihan boleh menambahkan berat badan.
- Makanan perlu dimakan pada masa yang sama setiap hari.
- Melambatkan masa makan atau makan pada masa-masa yang berbeza boleh menyebabkan paras gula darah lurun ke bawah paras normal dan menyebabkan hipoglisemia.
- Jika berat badan anda berlebihan, anda perlu menghadkan kuantiti makanan yang dimakan.

Diet diabetes anda adalah dalam bentuk PELAN MAKANAN INDIVIDU yang menyenaraikan jumlah dan jenis makanan yang dibenarkan bagi setiap waktu makan dan snek di antara waktu makan.

Terdapat 3 kumpulan makanan dalam diet diabetes anda :-

### Kumpulan I : MAKANAN YANG PERLU DIELAKKAN

Ini merupakan makanan karbohidrat bertapis yang mempunyai kandungan gula yang sangat tinggi.

Ia tidak mengandungi jumlah khasiat makanan lain yang ketara dan **TIDAK** boleh makan dalam keadaan biasa.

Makanan tersebut adalah :

- gula putih dan merah
- glukosa
- madu
- semua jenis sirap
- jem
- marmalad
- kaya
- minuman ringan
- kordial
- gula-gula
- kanji
- cokelat
- biskut manis
- buah-buahan tin
- susu pekat manis
- semua makanan lain yang bergula

### Kumpulan II : MAKANAN YANG DIBENARKAN TANPA SEKATAN (BEBAS)

Ini adalah makanan yang rendah kandungan tenaga dan karbohidratnya dan bebas diambil kecuali perkara (d)

#### (a) Cecair

- Air, teh, kopi
- Air soda dan galian (tidak Manis)
- Sup jernih

#### (b) Perasa dan perisa

- Rempah ratus, lada hitam, serbuk kari, biji sawi
- Herba, gambir, pudina, pasi
- Garam, cuka, kicap soya
- Sos cili (tulen)
- Esen vanilla, ros, badam, pandan

#### (c) Sayur-sayuran

- Semua jenis sayur kecuali yang disenaraikan di bawah makanan "bahagian" yang mana perlu di hadkan.

#### (d) Makanan berprotein dan berlemak makanan berprotein

- Ayam, daging, itik, telur, ikan dan keju. Cuba masukkan satu sajian setiap waktu makan

#### (e) Makanan berlemak :

- Marjerin dan minyak masak yang monotepu dan politepu



karbohidrat tetapi hanya mengandungi sumber tenaga yang tinggi, dan jika dimakan berlebihan boleh menambahkan berat badan.

Pengambilan protein dan lemak harian yang dibenarkan dan dikira oleh doktor atau Penyelia Jenis Makanan anda mengikut keperluan tenaga setiap hari.

### Kumpulan III : MAKANAN BAHAGIAN ATAU BERSEKATAN

Ini merupakan makanan karbohidrat tidak bertapis yang mesti dimasukkan di dalam diet anda tetapi makanan ini mengandungi sedikit gula atau kanji (karbohidrat)

#### (a) Bijirin :

- Roti – bijirin penuh, cokelat, putih bersekat tinggi
- Nasi, makanan oat
- Capati, roti canai, tosal, putu mayam
- Biskut manis

#### (b) Susu

- Jika diambil berlebihan

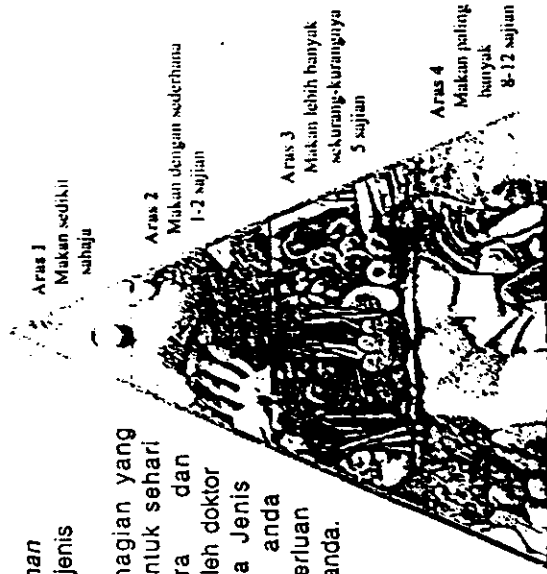
#### (c) Sayur-sayuran

- Kacang pea, kacang buncis besar, jagung manis, karot, labu
- Kentang, keledek, ubi kayu, keladi

#### (d) Buah-buahan

- Semua jenis

Bilangan bahagian yang dibenarkan untuk sehari akan dikira dan dinasihatkan oleh doktor atau Penyelia Jenis Makanan anda mengikut keperluan tenaga harian anda.



- Minuman beralkohol biasanya tidak dibenarkan dalam diet diabetik kerana ia mengandungi kandungan karbohidrat yang sederhana.
- Sedikit sahaja boleh di minum pada majlis sosial, jika dibenarkan oleh doktor anda.
- Jangan sekali-kali minum alkohol tanpa mengambil sebarang makanan.
- Elakkan minum alkohol apabila memandu, makan ubat atau cuba mengurangkan berat badan.

Haruskah saya mengambil makanan diabetik yang khas?

- Makanan diabetik yang khusus dipasaran tidak harus di gunakan kecuali disyorkan oleh doktor atau Penyelia Jenis Makanan anda.

Adakah semua pemanis tiruan sesuai untuk diabetik?

- Ini boleh digunakan dalam kuantiti yang sederhana jika dikehendaki.
- Berbincanglah dengan doktor atau Penyelia Jenis Makanan sebelum makan sebarang pemanis tiruan.

### CONTOH RANCANGAN MAKANAN

- Pesakit-pesakit diabetik boleh berbincang tentang diet mereka dengan membuat temujanji dengan Penyelia Jenis Makanan.

SARAPAN PAGI	Banyaknya	Bahagian/Bebas
Roti, bijirin, mi atau nasi	.....	Bahagian
Mentega, marjerin, minyak	1-2 sudu teh	Bebas
Telur	1-2 biji	Bebas
Teh atau kopi dengan susu cair	1 sudu makan susu	Bebas
MINUMAN PAGI	Banyaknya	Bahagian/Bebas
Teh atau kopi dengan susu cair	1 sudu makan susu	Bebas

blekut

<b>MAKAN TENGAH HARI</b>	<b>Banyaknya</b>	<b>Bahagian/Bebas</b>
Nasi, mi, roti	.....	Bahagian
Daging tanpa lemak atau ikan	4-3 oz	Bebas
Sayur-sayuran dari Kumpulan III	.....	Bahagian
Sayur-sayuran	.....	Bebas
Buah-buahan segar	.....	Bahagian
<b>MINUMAN PETANG</b>	<b>Banyaknya</b>	<b>Bahagian/Bebas</b>
Teh atau kopi dengan susu cair	1 sudu makan susu	Bebas
Roti atau biskut	.....	Bahagian
<b>MAKAN MALAM</b>	<b>Banyaknya</b>	<b>Bahagian/Bebas</b>
Nasi, mi atau roti	.....	Bahagian
Daging tanpa lemak atau ikan	3-4 oz	Bebas
Sayur-sayuran dari Kumpulan III	.....	Bahagian
Sayur-sayuran	.....	Bebas
Buah-buahan segar	.....	Bahagian
<b>MAKAN LEWAT MALAM</b>	<b>Banyaknya</b>	<b>Bahagian/Bebas</b>
Minuman bersusu	.....	Bahagian

**Panduan Pemilihan dan Penyediaan Makanan**

1. Ambil sajian yang seimbang dan diet yang berkhasiat dengan menekankan kepada pengambilan karbohidrat kompleks seperti produk bijirin contohnya beras, jagung, gandum, produk daripada gandum, oat, barli, legum (peas dan kekacang) serta ubi dan akar tumbuhan. Produk karbohidrat kompleks juga di kenali sebagai polisakarida merangkumi kanji dan gentian.

penting untuk kesihatan tubuh banyak terdapat dalam buah-buahan dan sayur-sayuran. Fiber gentian yang larut adalah dari bijirin, buah-buahan dan kekacang boleh membantu mengawal paras glukos dan kolesterol dalam darah. Cara terbaik untuk masak sayur adalah sama ada dengan mencelur, goreng dalam minyak yang sedikit atau di makan sebagai salad atau ulam (mentah)

3. Bagi makanan berprotein dan berlemak.

- Pilih daging yang tiada lemak dan buang lemak yang terdapat pada ayam dan masak dengan kaedah seperti bakar, rebus lebih daripada menggoreng
- Penggunaan daging dapat dikurangkan dengan menambah banyak kekacang dan sayuran seperti bendi, kacang buncis, kacang dai dan kacang pis dalam masakan.
- Hadkan penggunaan lemak seperti marjerin, mentega, minyak salad, krim dan mayonis.
- Penggunaan minyak politaktepu dan monotaktepu seperti minyak jagung, minyak zaitun, olein minyak sawit, minyak kacang soya dapat membantu menurunkan paras kolesterol darah.
- Pilihlah hasil tenusu yang rendah lemak seperti susu dan dadih yang rendah lemak untuk membuat puding atau diminum.

4. Penggunaan garam dan gula dalam masakan.

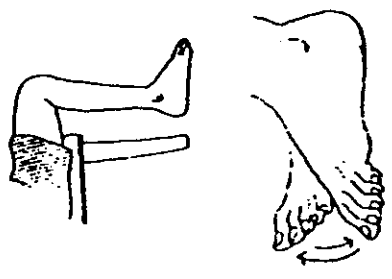
- Biasakan penggunaan rempah ratus dan herba untuk menggantikan garam
- Pilih buah-buahan segar, sayur, daging dan bijirin yang tidak diproses kerana pada umumnya ia rendah kandungan natrium.
- Pengambilan makanan masin, perencah makanan (kicap, sos iram) hendaklah dihadkan, label pada makanan hendaklah diteliti terutama pada makanan terproses dan ringan (snek)
- Rempah seperti kayu manis atau buah pala, daun pandan dan cengkkih dapat menambahkan rasa semula jadi makanan tanpa menambah gula.
- Minum air masak

Rujukan

1. Panduan Diet Malaysia 1999

Rajah 1

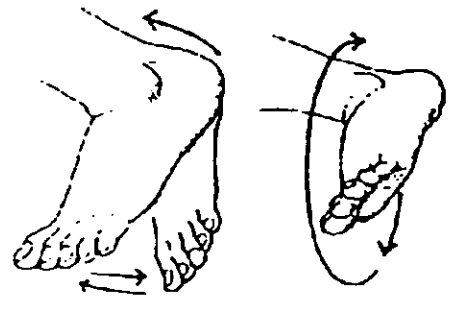
Duduk selesa dengan kaki diletakkan diatas lantai. Bengkokkan jari kaki ke atas dan ke bawah dengan tumit di letakkan di atas lantai. Lakukan sebanyak sepuluh kali.



Rajah 2

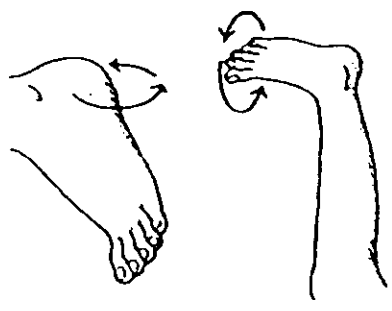
Angkat setiap kaki sebanyak yang boleh dengan mengekalkan tumit ke atas lantai. Selepas itu, angkat tumit dengan mengekalkan jari kaki di lantai. Lakukan sebanyak sepuluh kali.

Seterusnya, letak tumit di atas lantai, angkat kaki dan lukis bulatan. Lakukan sebanyak sepuluh kali.



Letakkan jari di atas lantai, angkat tumit dan cuba lukiskan bulatan. Lakukan sepuluh kali.

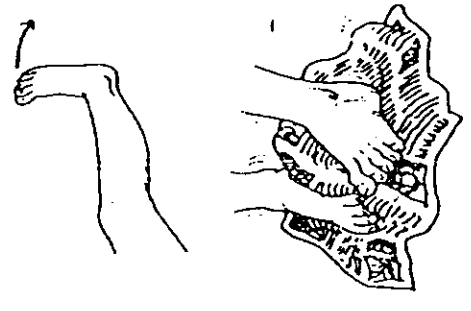
Angkat kaki ke atas dan lukis bulatan besar diudara. Lakukan sebanyak sepuluh kali.



Rajah 4

Duduk, bengkokkan dan luruskan lutut. Lakukan kedua-dua belah lutut sebanyak sepuluh kali.

Letakkan sehelai kertas surat habar di atas lantai. Renyukkan kertas tersebut menggunakan kedua-dua belah kaki menjadi sebiji bola. Kemudian ratakan kembali. Lakukan sebanyak sekali.



### UBAT ANTIDIABETES YANG DIMAKAN

Bagaimana ubat antidiabetes yang dimakan berfungsi di dalam badan anda?

Ubat antidiabetes yang dimakan, diperbuat dari bahan kimia yang boleh merendahkan kandungan gula dalam darah.

Terdapat dua cara tindakan :

- i) Dengan membantu badan membuat lebih banyak insulinnya sendiri atau
- ii) Dengan membuat sel badan untuk menggunakan insulin dari badan sendiri dengan sepenuhnya.

Ia hanya berguna kepada mereka yang masih boleh mengeluarkan insulin sendiri. Pesakit ini dikatakan tidak bergantung kepada suntikan insulin.

Ubatan yang dimakan boleh diklasifikasikan sebagai ubat yang bertindak cepat, sederhana dan jangka panjang.

Contoh kumpulan ini ialah:

- Bertindak cepat - Tolbutamide
- Bertindak sederhana - Glizacide, glibenciamide, metformin
- Bertindak jangka panjang - Chlorpropamide

Bagaimana ubat antidiabetes yang dimakan perlu diambil?

Makan ubat ini seperti yang diarahkan oleh doktor untuk menentukan ubat ini berfungsi sepenuhnya.

**SEMAK ARAHAN** pada sampul ubat berkenaan.

- **JANGAN** makan ubat semasa perut kosong
- Jika anda terlupa makan ubat ini, makan dengan segera.

Jika tiba masa untuk dos berikutnya, tinggalkan dos tersebut dan ikut semula jadual yang biasa. **JANGAN MENGGANDAKAN DOS.**

- Sekali sehari pada 8.00 pagi atau
- Dua kali sehari pada 8.00 pagi dan 8.00 malam atau
- Tiga kali sehari pada 8.00 pagi, 2.00 petang dan 8.00 malam

- Jangan mengambil ubat-ubat lain kecuali yang dibenarkan oleh doktor anda.
- Elakkan meminum alkohol apabila makan ubat.

Adakah Terdapat Sebarang Kesan Sampingan?

Kesan sampingan mungkin berlaku di kalangan selengah pesakit. Mereka mungkin kehilangan selera makan, merasa loya atau mempunyai ruam.

### BERJUMPAHALAH DENGAN DOKTOR JIKA ANDA DAPATI ADA SEBARANG KESAN SAMPINGAN

Kesan sampingan mungkin akan hilang apabila badan anda menyesuaikan diri dengan ubat tersebut. Bagaimanapun, beberapa kesan sampingan tersebut mungkin perlu diberitahu kepada doktor anda. Sekiranya terdapat kemusykilan hubungilah doktor anda.

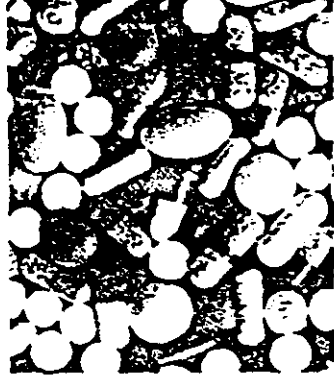
Adakah apa-apa langkah keselamatan yang perlu diambil semasa memakan ubat antidiabetik?

Selalulah maklumkan kepada doktor yang anda sedang memakan ubat ini sebelum menjalani pembedahan, rawatan pergigian atau rawatan kecemasan.

Jangan makan ubat antidiabetik jika anda hamil atau menyusukan anak dengan susu badan (Mesti menukar ke cara suntikan insulin dengan nasihat dan bantuan doktor)

Makan atau minumlah sesuatu yang manis jika gejala paras gula darah rendah terjadi dan hubungilah doktor anda segera. Periksa gula darah sekiranya anda boleh berbuat demikian.

- Beberapa contoh gejala gula darah rendah (hipoglisemia) ialah : sejuk, peluh dingin dan gemuruh.



- Jauhkan obat dari kanak-kanak
- Simpan di tempat yang bersih, kering dan sejuk
- Buang obat yang telah luput tarikh atau obat yang telah tidak diperlukan lagi.

#### Ingat

- Dengan pengawalan diet yang betul, senaman dan obat yang betul seseorang diabetes itu boleh menikmati kehidupan normal dengan sepenuhnya.
- Ubatan boleh membantu mengawal diabetes dan paras gula dalam darah anda
- Jika paras gula anda terkawal, komplikasi diabetes yang serius seperti serangan jantung dapat dielakkan.
- Rawatan diabetes adalah sepanjang hayat. Selalulah mengambil ubat seperti yang diarahkan oleh doktor.

Jika anda mempunyai kemusykilan tentang ubatan anda, hubungi doktor atau ahli farmasi anda.

## INSULIN

### Apakah dia insulin?

- Insulin tergolong dalam kumpulan ubat yang dipanggil hormon. Insulin dibuat secara asil oleh badan untuk membantu menghasilkan tenaga daripada karbohidrat dan gula yang terdapat dalam makanan.
- Insulin diberikan oleh doktor untuk pesakit diabetes yang mana diabetesnya tidak boleh dikawal secara diet, kawalan berat badan atau dengan ubat antidiabetes yang dimakan.
- Terdapat pelbagai jenis insulin bergantung kepada kepentingan serta sejauh mana tindakannya dapat kekal.

Contoh insulin :-

Tindakan jangka pendek - insulin manusia (Jernih) Actrapid  
 Tindakan sederhana - Monolard, Protophana, Humilin N  
 Tindakan jangka panjang - Actraphane

- Insulin perlu di suntik di bawah kulit dengan menggunakan jarum dan "syringe" yang telah disucihama.
- Insulin tidak boleh di makan kerana apabila ditelan ianya cepat musnah oleh jus penghadam di dalam perut dan tidak akan sampai ke seluruh sel badan untuk membantu mereka mendapatkan glukosa dari darah.

### Apakah cara yang betul untuk memberikan suntikan?

- Arahan terperinci tentang bagaimana menyuntik diri anda sendiri boleh di dapati dari doktor dan paramedik anda.
- Jangan goncang botol dengan kuat sebelum digunakan tetapi pegang di antara dua hujung jari dari hujung ke hujung botol itu atau golekkan ia perlahan-lahan antara dua tapak tangan anda.
  - Selalu periksa dos di dalam "syringe" sekurang-kurangnya dua kali sehari sebelum disuntik.
  - Cuci tempat yang hendak disuntik itu bersih-bersih dengan antiseptik seperti alkohol.
  - Tukar tempat suntikan setiap hari. Jika anda menggunakan tempat yang sama setiap kali suntikan, benjolan atau lubang mungkin terjadi pada kulit selepas beberapa ketika. Insulin tidak dapat diserap dengan baik di tempat-tempat berkenaan.
  - Tempat-tempat yang sesuai untuk disuntik ialah bahagian lengan atas, paha atas, bahagian atas pinggul dan perut. Bagaimanapun suntikan di kawasan perut adalah lebih baik. Semasa melakukan senaman yang serius cuba elakkan kawasan-kawasan badan yang mungkin terdedah kepada jangkitan misalnya paha.
  - Jangan menyuntik insulin yang sejuk.
- Apa harus saya lakukan jika anda terlupa satu dos?
- Jadikan suntikan insulin sebagai sebahagian dari jadual harian anda supaya anda tidak terlupa mana-mana dos.
  - Jika anda terlupa mana-mana dos, lupakan dos tersebut dan pastikan dos berikutnya diambil tepat pada masanya.

Hubungi doktor anda jika terdapat kemerahan atau bengkak di tempat suntikan, gatal-gatal kulit atau tanda gula darah rendah seperti berpeluh dan denyutan jantung kencang.

Apakah langkah keselamatan yang perlu saya ambil?

- Elakkan minuman beralkohol.
- Selalulah hubungi doktor anda untuk mendapatkan nasihat sebelum mengambil ubat lain.
- Selalu memaklumkan kepada doktor sebelum sebarang pembedahan, rawatan atau rawatan pergigian.

Bagaimanakah harus saya menyimpan insulin?

- Insulin hendaklah disimpan di dalam peti sejuk tetapi BUKAN di dalam ruang sejuk beku. Bebui (vial) yang digunakan bolehlah disimpan didalam tempat sejuk (maksimum 25°C) dan jauh dari cahaya matahari.
- Jauhi ubat dari kanak-kanak.

Ingat:-

Jika anda mempunyai sebarang kemusykilan tentang ubat anda, HUBUNGI DOKTOR ATAU AHLI FARMASI ANDA



## PENGURUSAN DIABETES PADA MASA TERTENTU

Kawalam diabetes yang baik pada umumnya memerlukan azam yang kuat dan stabil dari segi diet, senaman dan perubatan. Bagaimanapun semasa menjalani kehidupan, seseorang individu itu akan menemui situasi tertentu yang akan mengganggu keharmonian ini, menyebabkannya kehilangan azam untuk mengawal diabetes. Gangguan ini memerlukan penyesuaian yang khusus terhadap pengambilan ubat, diet dan senaman.

### 1. Bulan Puasa

- Puasa boleh diamaikan oleh mereka yang mempunyai kawalan diabetes yang baik dan dalam keadaan kesihatan yang baik.
- Puasa hendaklah dilakukan dengan nasihat dan persetujuan doktor.
- Di mana terdapat kontraindikasi bahawa apabila puasa boleh menjejaskan kesihatan pesakit secara serius, individu berkenaan hendaklah menghentikan berpuasa (mengikut kebenaran yang diharuskan oleh agama)
- Di mana perlu, nasihat diet hendaklah didapatkan dari pakar misalnya Penyelia Jenis Makanan.
- Apa jua penyesuaian yang dibuat hendaklah tidak dilaksanakan dengan terlalai ketat.

### 2. Perjalanan

- Rancanglah jadual perjalanan anda dengan awal.
- Hubungi doktor anda sebelum melakukan perjalanan jika anda ragu-ragu tentang kawalan diabetes dari segi taraf kesihatan anda.
- Pastikan bekalan rawatan anda boleh diperolehi di setiap destinasi anda. Bagi pesakit yang menggunakan insulin pastikan "syringe" dan pengesat adalah mencukupi.
- Sebolehnya ikutilah jadual yang sama misalnya waktu makan. Bawa bersama anda satu bungkusan snek bagi perjalanan yang jauh.
- Sebolehnya teruskan tabiat senaman anda
- Sertai "Medic Alert" atau pertubuhan yang sama atau bawa bersama anda pengenalan perubatan atau kad rawatan.

**MENGAWASI DIABETES**

Pada masa ini diabetes tidak dapat disembuh, jadi pesakit diabetes perlu bertanggungjawab menjaga penyakit mereka. Setiap pesakit perlu memperkuasai diri dengan cukup pemahaman dan pengetahuan tentang diabetes, komplikasinya dan pengurusannya.

Pengurusan diri diabetes ialah satu pelan yang merangkumi pemantauan tahap glukos dalam darah, pengawalan berat badan sihat, pengurusan pengambilan makanan, peningkatan tahap aktiviti fizikal dan pengambilan ubatan/insulin.

**PEMANTAUAN TAHAP GULA DALAM DARAH**

Pesakit boleh melakukan ujian ini sendiri dengan menggunakan alat khas (glucometer) yang boleh didapati di kedai farmasi. Pengukuran paras gula darah pada masa tertentu adalah amat berguna untuk pengawalan diabetes. Contohnya ujian gula darah satu atau dua jam selepas makan dapat menunjukkan berapa tinggi paras gula darah naik apabila kita memakan sesuatu jenis/jumlah makanan yang dimakan. Kekerapan gula darah yang diuji bergantung kepada tahap penyakit atau nasihat doktor.

Tahap kawalan yang dikehendaki ialah :

- Sebelum makan - 4-7mmol/l
- Postmeal - bawah 10mmol/l
- Bedtime - 6mmol/l

Paras glucose	Sebelum makan, puasa	Nasihat
Normal	4-7mmol/l	Sambung ujian seperti biasa.
Tinggi sedikit	7-10	Hubungi doktor untuk rawatan jika berterusan.
Meningkat	10-16.7	Jalani ujian keton darah.
Tinggi	> 16.7	Jalani ujian keton darah.

Kekerapan menguji paras gula dalam darah bergantung kepada cara hidup dan tahap penyakit diabetes masing-masing. Berbincanglah dengan petugas kesihatan anda.

- Jika dijemput ke parti/jamuan makan malam tidak bererti ia akan menjajikan anda dengan syarat :-
  - i. Anda menyesuaikan pengambilan makanan anda dalam bersiap sedia menghadapi jamuan sosial jika jamuan ini akan berlangsung agak lewat.
  - ii. Pastikan anda memilih makanan yang sesuai dan dalam kuantiti yang betul
  - iii. Jika boleh, makan makanan biasa anda atau makanan bahagian anda di rumah dan lakukan penyediaan yang perlu dan imbangilah ia semasa anda berada di jamuan sosial.

4. Mengandung

- Rancangan kehamilan anda dan beritahu doktor sebelum mengandung tentang rancangan anda supaya ubat diabetes anda boleh bertukar kepada insulin.
- Hubungi doktor dan Penyelia Jenis Makanan anda.
- Patuhi semua arahan doktor dan Penyelia Jenis Makanan dari segi diet, senaman dan rawatan.
- Sebaik sahaja anda disahkan hamil, aturkan susulan yang rapi dengan Pakar Perbidanan di samping doktor biasa anda.
- Rancanglah kelahiran di hospital
- Jika terdapat kontraindikasi, sesorang itu hendaklah mengelakkan dari hamil.
- Amalkan perancang keluarga
- Kalau diabetes tidak dikawal semasa mengandung keguguran dan kecacatan mungkin berlaku.

5. Penyakit Ringan

- Penyakit ringan mengganggu kawalan diabetik dengan menjejaskan selera makan, menyebabkan tekanan, menjejaskan proses dan permintaan metabolik fisiologi.
- Apabila sakit, hubungi doktor anda untuk nasihat yang perlu mengenai rawatan
- Selalu pastikan pengambilan makanan yang mencukupi apabila ubatan diambil.
- Walaupun anda tidak boleh makan terlalu banyak, khususnya jika anda merupakan pesakit diabetik yang bergantung pada insulin anda perlu terus mengambil insulin mengikut dos yang betul.
- Pastikan anda minum air dan cecair yang mencukupi.
- Penyediaan insulin mungkin perlu ada arahan hendaklah dipatuhi dengan tepat.
- Apabila ragu-ragu, hubungi doktor anda.

- 6. Sebelum apa-apa pembedahan, tolong memberitahu doktor, anda adalah seorang pesakit diabetes.



**HIPOGLICEMIA**

Hipoglicemia ialah keadaan di mana paras gula darah terlalu rendah dari tahap normal. Ia boleh berlaku disebabkan oleh :

1. Tidak mengikut jadual/ pelan pemakanan yang betul-makan terlalu sedikit atau menukar masa makan.
2. Terlalu banyak senaman yang tidak dirancang/terlalu lama tanpa snack
3. Makan ubat berlebihan atau menukar masa makan ubat
4. Tekanan
5. Kesan sampingan ubatan lain
6. Pengambilan alkohol

Salah satu atau kombinasi faktor diatas boleh menyebabkan hipoglisemia.

Apakah gejala hipoglisemia

- Terasa lapar
- Berpeluh
- Loya
- Menggigil/sejuk
- Kabur penglihatan
- Kebas lidah/bibir
- Keletihan
- Peningkatan degupan jantung
- Pingsan
- Keliru dan koma

Apakah yang harus dilakukan jika terjadi hipoglisemia

Jika boleh buat kajian ujian gula dalam darah kerana sesetengah pesakit tiada tanda hipoglisemia tetapi tahap gula dalam darahnya rendah sementara bagi sesetengahnya pula mempunyai tanda hipoglisemia sedangkan hakikat sebenarnya tidak.

Ambil karbohidrat yang cepat meresap seperti jus buah-buahan (oren/ epal), tablet glukos, madu dan gula-gula.

Berehat selama 10-15 minit untuk membolehkan badan meresapkan gula tersebut. Jika tidak merasa pulih ulangi rawatan yang sama. Jika gejala berterusan dapatkan nasihat dan rawatan doktor.

Jika pesakit tidak sedarkan diri, hendakan membasunkan mulut pesakit dengan jari yang telah dicelupkan dalam larutan gula. **DILARANG KERAS** memasukkan cecair ke dalam mulut pesakit yang koma kerana boleh menyebabkan penyedutan cecair ke paru-paru. Bawaiah pesakit ke klinik dengan segera.

Pencegahan adalah lebih baik dari berubat. Hipoglisemia boleh membawa maut.

**KETOACIDOSIS**

Adalah keadaan di mana paras glukos yang tinggi dalam darah menyebabkan pengumpulan bahan toxic (keton) dalam badan dan menyebabkan acidosis dan boleh membawa maut.

Faktor penyebab:

- Kegagalan mengambil insulin bagi pesakit yang bergantung kepada insulin.
- Terjadinya tekanan pada pesakit diabetes iaitu jangkitan kuman, serangan jantung, stroke dan lain-lain.

Tanda-tanda awal:

- Dahaga
- Mulut kering
- Polyuria
- Paras glukos tinggi dalam darah

Tanda kemudian: (Later symptoms)

- Loya/Muntah
- Kurang selera/Keletihan
- Dahaga dan dehidrasi
- Nafas berbau keton
- Kesakitan perut
- Keliru
- Kehilangan berat badan
- Rabun mata tiba-tiba
- Bernafas dengan laju
- Koma

- Pesakit type 1 diabetes
- Semasa tidak sihat, jangkitan kuman atau muntah-muntah
- Pesakit kanak-kanak atau remaja
- Kegagalan mengambil insulin bagi pesakit yang bergantung kepada insulin
- Pesakit berumur yang mempunyai pelbagai jenis penyakit
- Perempuan mengandung dengan type 1 diabetes

### Bagaimana mencegah DKA (Diabetic Ketoacidosis)

Ujian keton atau pengesanan paras keton darah yang awal dan tindakan yang segera dapat mencegah dari terjadinya ketoacidosis.

Pesakit diabetes perlu mengenali tanda-tanda diabetes ketoacidosis dan mendapatkan rawatan yang segera jika mengalami perkara tersebut.

### Ujian keton darah

Paras keton (mmol/l)	Nasihat
<0.6	sambung ujian glukos darah
0.6 – 1.5	ulangi ujian glukos dan keton darah dalam masa 2-4 jam
1.5 – 3	risiko dapat diabetic ketoacidosis hubungi doktor segera
>3	keceemasan segera ke Jabatan kecemasan

Tahap kawalan gula darah (diabetes) yang baik adalah amat penting untuk mencegah komplikasi-komplikasi akibat diabetes.

Kesedaran dan motivasi serta kerjasama pesakit adalah amat mustahak dalam menangani masalah penyakit kronik seperti diabetes.

Hypoglycemia, diabetic ketoacidosis boleh membawa maut. Tindakan segera adalah amat penting.



## APPENDIX F

### EXPERT LIST

Five experts were examined the content validity of the instrument for Type 2 persons.

There are

1. Professor Mafauzy Mohamed  
Diabetologist, School of Medical Science, University Science Malaysia,  
Health Campus, Kubang Kerian, Kelantan.
2. Dr. Kanittha Naka  
Nursing Lecturer, Department of Surgical Nursing, Faculty of Nursing, Prince  
of Songkla University, Thailand.
3. Dr. Sudsiri Hirunchunha  
Nursing Lecturer, Department of Surgical Nursing, Faculty of Nursing, Prince  
of Songkla University, Thailand.
4. Mrs. Rogayah Abdul Rahim  
Nursing Lecturer of Nursing Program, University Science Malaysia, Health  
Campus, Kubang Kerian Kelantan.
5. Mrs. Shareen Nui  
Diabetes Educator at Diabetes Clinic, University Hospital Science Malaysia, Kubang  
Kerian, Malaysia.

**EXPERT LIST (Continued)**

Four experts were evaluated the content of Supportive-Developmental Nursing Plan for the Type 2 persons. There are

1. Professor Mafauzy Mohamed  
Diabetologist, School of Medical Science, University Science Malaysia,  
Health Campus, Kubang Kerian, Kelantan.
  
2. Assistant Professor Dr. Pleonpit Thaniwatthananon  
Nursing Lecturer, Department of Medical Nursing, Faculty of Nursing, Prince  
of Songkla University, Thailand.
  
3. Dr. Sudsiri Hirunchunha  
Nursing Lecturer, Department of Surgical Nursing, Faculty of Nursing, Prince  
of Songkla University, Thailand.
  
4. Mrs. Rogayah Abdul Rahim  
Nursing Lecturer of Nursing Program, University Science Malaysia, Health  
Campus, Kubang Kerian Kelantan.

**EXPERT LIST (Continued)**

Two persons worked on the translation of the instrument:

1. Translation on the instruments

Mrs. Enikartini Daud

Centre for Languages and Translation, University Science Malaysia, Health Campus,  
Kubang Kerian, Kelantan.

2. Final checked by

Mrs. Rogayah Abdul Rahim

Nursing Lecturer of Nursing Program, University Science Malaysia, Health  
Campus, Kubang Kerian Kelantan.