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Quality Assurance Indicator

Non-Communicable Disease Control, Public Health Programme

SIQ INVESTIGATION
Quality of Diabetes Care at MOH Healthcare Facilities: Glycaemic Control

Non-Communicable Disease Section
Disease Control Division
Ministry of Health, Malaysia
2008

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Produced & Distributed by:
Non-Communicable Disease Section (NCD)
Disease Control Division
Ministry of Health, Malaysia
Level 6, Block E10, Complex E
Federal Government Administration Centre
62590 Putrajaya

Tel: 603-8883 4145 Fax: 603-8888 6277
Website: http://www.dph.gov.my/ncd/

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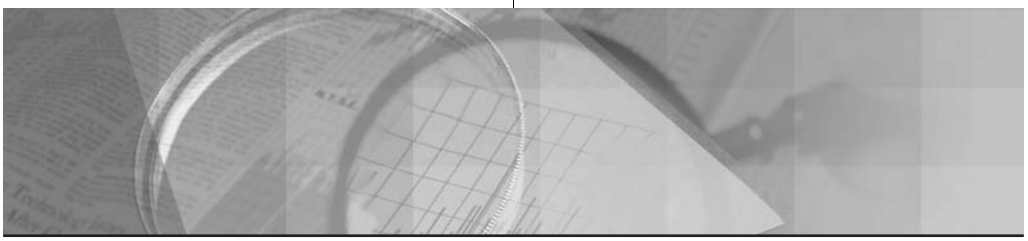

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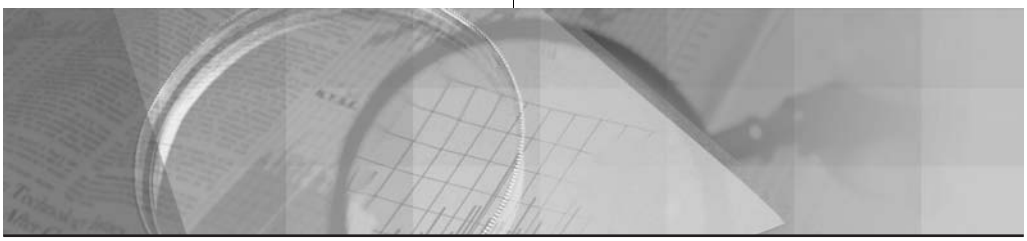

WORKING COMMITTEE

ADVISOR	**Dr. Zainal Ariffin Omar**	Public Health Consultant & Deputy Director (NCD) Disease Control Division
CHAIRMAN	**Dr. Fatanah Ismail**	Public Health Physician & Principal Assistant Director Disease Control Division (NCD)
SECRETARIAT	**Dr. Feisul Idzwan Mustapha**	Public Health Physician & Senior Assistant Director Disease Control Division (NCD)
	Dr. Nik Jasmin Nik Mahir	Public Health Physician & Principal Assistant Director Quality & Standards Unit Department of Public Health
MEMBERS	**Dr. Zanariah Hussein**	Endocrinologist Hospital Putrajaya
	Dr. Nor Izzah A. Shauki	Public Health Physician & Principal Assistant Director (Quality) Selangor Health Department
	Dr. Ghazali Chik	Public Health Physician & Principal Assistant Director Quality & Standards Unit Department of Public Health
	Dr. Rotina Abu Bakar	Public Health Physician & Principal Assistant Director (Epid) Negeri Sembilan Health Department
	Dr. Zulhizzam Abdullah	Public Health Physician & Principal Assistant Director (Epid) Perlis Health Department
	Dr. Mastura Ismail	Family Medicine Specialist Kuala Pilah Health Clinic

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Quality Of Diabetes Care At Moh Healthcare Facilities: **SIQ Investigation Guideline**

1.0 INTRODUCTION

The scope and coverage of services provided for diabetes care at the MOH health clinics have increased over the last ten years. Family Medicine Specialists provide specialist care at the primary care level, supported by the increasing numbers of diabetes educators, nurses and assistant medical officers who have underwent post-basic training in the management of diabetes. Patient education and counselling are supported by various tools and the availability of diabetes resource centres. Despite these many improvements, the quality of care is a component that is not readily and systematically assessed as part of service delivery.

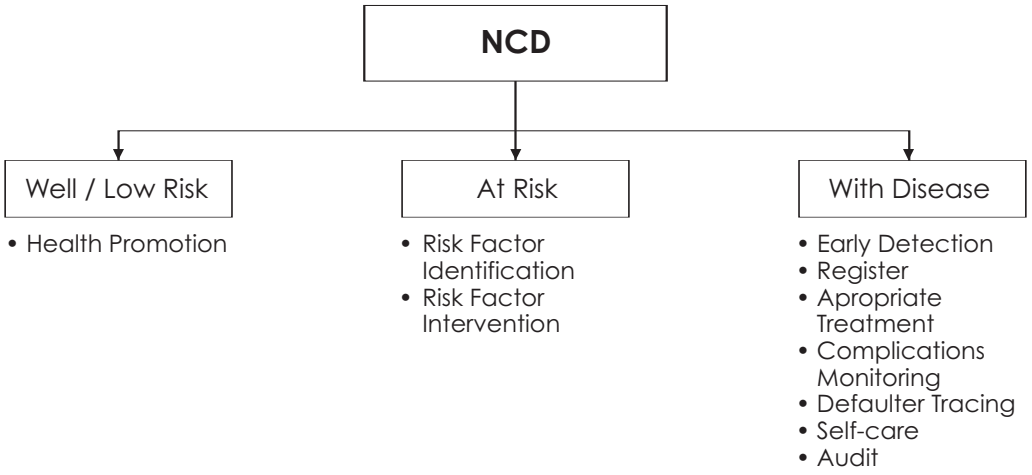

Figure 1 Malaysia NCD Prevention & Control Framework, 2006

As illustrated in **Figure 1** above, "Audit" is an essential component in provision of care to patients with NCD, including diabetes. While the "Clinical Diabetes Audit" provides the tool to assess the current status of patients receiving treatment at the particular health care facility (i.e. providing the information of "where are we now"), this current Diabetes QA/NIA provides the mechanism for continuous improvement to further improve our quality of care delivery (i.e. "what's our short comings and how we can further improve").

1.1 Rationale For Selection Of Indicator

The quality of medical care delivered to our diabetes patients at our healthcare facilities is a very important factor in determining glycaemic control among our diabetes patients nationwide as it was shown that about 75% of diabetes patients in Malaysia seek treatment at government healthcare facilities.

The need for a set of standard diabetes care measurements was based on the IHM 2006 study which showed that diabetes care throughout the country is suboptimal. The need for optimal glycaemic control is further emphasized by results from the EPIC-Norfolk study, in which the risk of death from all causes (and from heart disease in particular), rose with increasing HbA_{1c} concentration at all levels.

1.2 Objective Of Indicator

The main objective of this indicator is to assess the quality of care of patients with diabetes in MOH healthcare facilities (health clinics), using HbA_{1c} level as the proxy. It is important that we improve the number of patients with diabetes to achieve the target glycaemic levels so as to reduce the risk of complications and improve their quality of life.

2.0 FORMULA OF THE INDICATOR

$$\text{Proportion of diabetes patients with } HbA_{1c} < 7.0\% = \frac{\text{Number of diabetes patients with } HbA_{1c} < 7.0\%}{\text{Total number of cases sampled}} \times 100\%$$

2.1 Optimum Achievable Standard

The optimum achievable standard: **≥ 30%**

3.0 RESPONSIBLE STAFF FOR INVESTIGATION

The QA study is to be conducted once a year within the time period of **1 to 30 September** annually, following the completion of the Diabetes Clinical Audit, at all Klinik Kesihatan providing diabetes services in each district in Malaysia.

The QA coordinator for each district will be the most senior Family Medicine Specialist (FMS). Should any particular district do not have an FMS, the district Medical Officer of Health may elect the most senior Medical Officer as the district QA coordinator. The district QA coordinator is responsible in ensuring that the QA study is conducted in a timely manner, carried out as per protocol, leads any subsequent SIQ investigations, and ensures that the results are submitted before the stipulated dateline to the respective district health office.

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4.0 STEPS IN INVESTIGATION

Please refer to **Figure 2** for an overview of the steps required in the SIQ investigation for this indicator.

4.1 Steps in Phase I Study

For all cases with poor glycaemic control, the clinical audit data needs to be completed and filed (refer to **Appendix 1**).

Step 1 : Determine status of shortfall in quality by comparing with the national optimum achievable standard at the end of the cycle. (use format **QA/DM/PKD/2008** as per **Appendix 2**)

Step 2 : If there is no shortfall in quality, the investigation ends. If there is any shortfall in quality, review and verify data for any error.

Step 3 : If there is any error, make corrections and determine status again. If no error (true shortfall in quality), continue QA investigation. Begin Phase II study.

4.2 Steps in Phase II Study

Step 1 : Review every case of poor glycaemic control and compare with the model of good care. (**refer Appendix 3**)

Step 2 : Determine whether each step was adequate, appropriate and timely. If no, identify weaknesses in each area of care (problems). If yes, investigation ends.

Step 3 : Determine the frequency/magnitude of the problems by reviewing a random sample of cards/records of diabetes patients (not less than 30 cases) using a model of good care. In this sample, determine the proportion of patients who have the same problem as identified in the cases with poor glycaemic control and determine its proportion.

Step 4 : If the problem did not occur in the sample, remedial measures should be taken for the specific cases (isolated cases). If the same problem occurred in the sample or other problems identified during the review of diabetes cases, proceed to Phase III study. (refer to **Appendix 4** for the Cause-Effect Analysis)

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4.3 Steps in Phase III Study

The aim is to determine the causes or contributing factors of only the specific weaknesses identified in Phase II. The steps that should be taken are:

Step 1 : Conduct a problem analysis by brain-storming, nominal group technique and develop a cause-effect analysis chart (refer to **Appendix 4**), specific for the problem identified in the Phase II study.

Step 2 : Develop variables utilising the cause-effect analysis chart and set acceptable standards. (refer **Appendix 5** for examples)

Step 3 : Construct the relevant questionnaires for interviewing staff, cases and checklist for observation of procedures carried out by staff if needed. (examples are shown in **Appendices 6, 7 and 8**)

Step 4 : Decide on the sample unit, sample size and method of data collection. (refer to **Appendix 5** for examples)

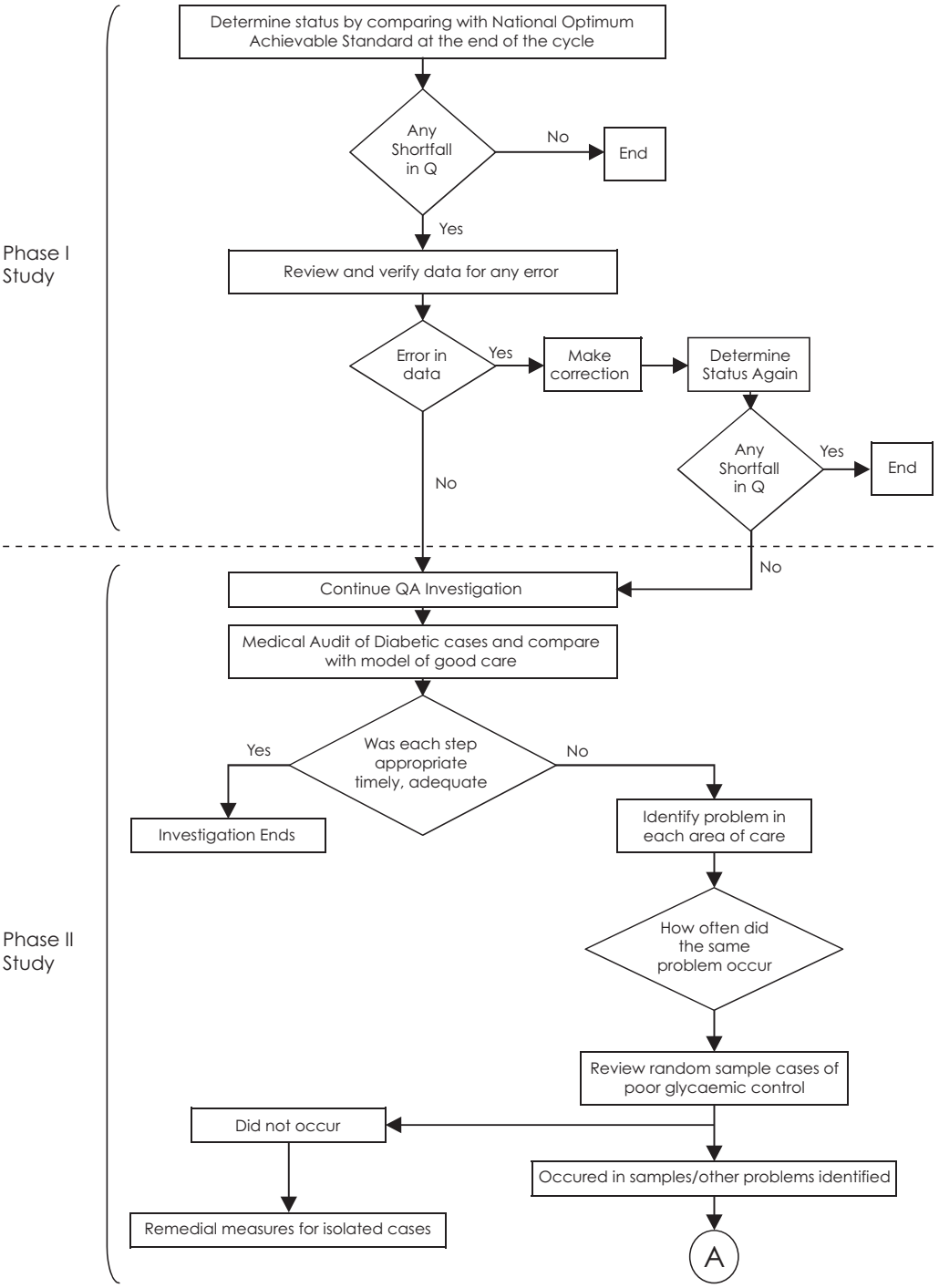
Step 5 : Brief the relevant staff on formats to be used and specify source of data, size of sample, method of sampling, selection of sample and decide on who collects the data, target dates and methods of checking quality of data.

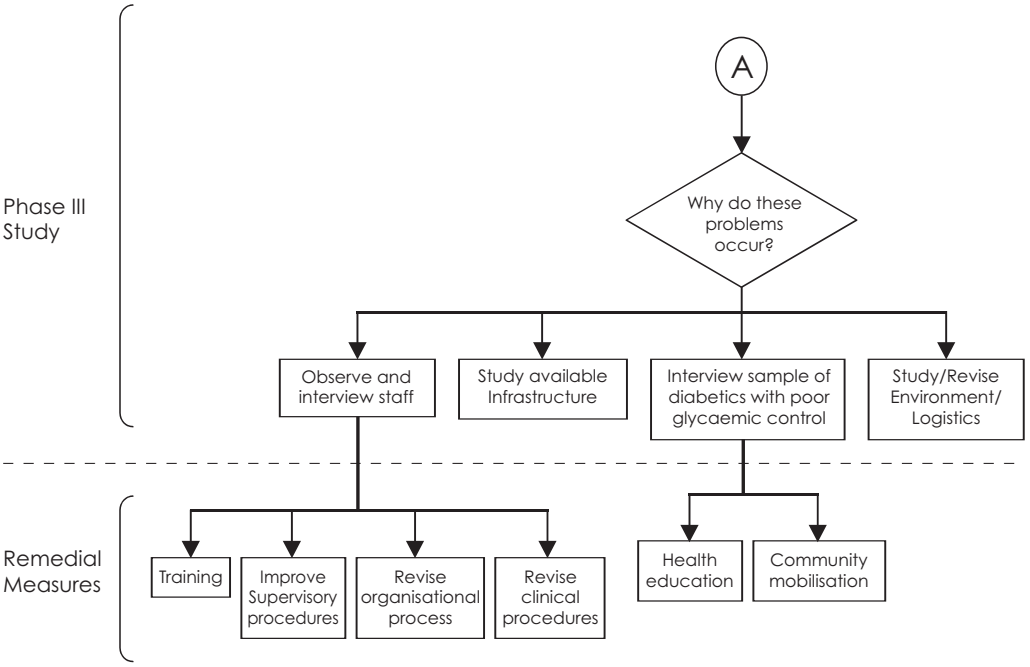
Step 6 : Supervise data collection.

Step 7 : Compile data using master sheet and prepare frequency tables which are to be used for data analysis.

Step 8 : Do data analysis, tabulate findings and derive conclusions on the possible causes and contributory factors identified.

FIGURE 2 Flow Chart Showing Steps In Investigation





5.0 REMEDIAL MEASURES

Based on the findings of the investigation, suitable remedial measures need to be formulated and a plan of action developed for implementation after discussion and agreement at the district level meeting. The findings of the investigation should be presented at this meeting and remedial measures should be relevant to the findings. Please refer to the following documents as references:

i. Clinical Practice Guidelines for Type 2 Diabetes Mellitus in Malaysia
ii. Garis Panduan Pengendalian Diabetes di Fasiliti Kesihatan

The remedial measures and recommendations will then be distributed to all clinics in that particular district so that lessons may be learned collectively.

6.0 REPORT WRITING

The District MOH is responsible for the final SIQ report (form **QA/DM/SIQ/PKD/2008**; see **Appendix 9**) to be submitted from each district to the state health department. At the state health department, the Public Health Physician and Primary Care Officer, together with the Deputy Director (Public Health) are responsible for reviewing all reports received from each district and compiling these reports into form **QA/SIQ/DM/JKN/2008** (see **Appendix 9**) for final submission to the Family Health Development Division (Primary Care) and the Quality Improvement Unit, Department of Public Health, MOH, Putrajaya.

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7.0 FOLLOW-UP

The Family Medicine Specialists, District MOH, Primary Care Officer and the state's Public Health Physicians are responsible at their respective levels for monitoring the effectiveness of the remedial measures. This can be done by two ways; periodic auditing (using the Diabetes Clinical Audit mechanism or by directly observing the work process); and also by monitoring the results of subsequent QA cycles for the clinic and district. If there is inadequate improvement, the investigation may need to be repeated and any remedial measures revised.

If there is inadequate improvement in subsequent QA cycles, the investigation may need to be repeated and any remedial measures revised.

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Appendix 1

Borang Audit
No._____

NCD/Audit/version_3.0/2008

AUDIT KLINIKAL DIABETES: REKOD RAWATAN PESAKIT DIABETES JENIS 2

Klinik Kesihatan: _____ Jenis klinik: FMS / MO / AMO
Nama pesakit: _____ No. IC: _____
Tarikh lahir: _____ Jantina: Lelaki / Perempuan
Tarikh diabetes didiagnosa: _____ Etnik: _____
* estimate/presumed ☐

Kriteria		Keputusan pemeriksaan terbaru	Tarikh keputusan pemeriksaan terbaru (1 tahun yang lepas)	Tidak dilakukan
Tinggi		cm		☐
Berat badan		kg	/ /	☐
Ukur lilit pinggang		cm	/ /	☐
Indeks jisim tubuh (BMI)		kg/m2	/ /	☐
Tekanan darah		mmHg	/ /	☐
Ujian RBS		mmol/L	/ /	☐
Ujian FBS		mmol/L	/ /	☐
Ujian 2HPP		mmol/L	/ /	☐
Ujian HbA_{1c}		%	/ /	☐
Serum kolesterol	Total:	mmol/L	/ /	☐
	TG:	mmol/L	/ /	☐
	HDL:	mmol/L	/ /	☐
	LDL:	mmol/L	/ /	☐
Kreatinin		μmol/l	/ /	☐
Ujian urin mikroalbumin		Positif / negatif	/ /	☐
Ujian urin protin		Positif / negatif	/ /	☐
Pemeriksaan fundus		Normal / abnormal	/ /	☐
Pemeriksaan kaki		Normal / abnormal	/ /	☐
Ujian ECG		Normal / abnormal	/ /	☐
Saringan untuk Erectile dysfunction		Normal / abnormal	/ /	☐

* ***Estimate/presumed:*** Jika tarikh tidak diketahui, sila isikan 30/06/yyyy dan tandakan kotak bersebelahan

NOTA: Untuk 'Komplikasi' diabetes yang dikesan dalam masa rawatan dan tidak terhad kepada tempoh setahun yang lalu:

Komplikasi	Ada	Tiada	Tidak diketahui	Jika YA, tarikh diagnosa	*Estimated/ presumed
Retinopati	☐	☐	☐	/ /	☐
Ischaemic heart disease	☐	☐	☐	/ /	☐
Cerebrovascular disease	☐	☐		/ /	☐
Nefropati	☐	☐	☐	/ /	☐
Diabetic foot ulcer	☐	☐	☐	/ /	☐
Amputasi	☐	☐		/ /	☐

Concomitant Co-morbidity	Ada	Tiada	Tidak diketahui	Jika YA, tarikh diagnosa	*Estimated/ presumed
Hipertensi	☐	☐	☐	/ /	☐
Dyslipidaemia	☐	☐	☐	/ /	☐

Diabetes medications	Ya
Biguanides (e.g. metformin)	☐
Sulphonylureas (e.g. glibenclamide)	☐
α–glucosidase inhibitors (acarbose)	☐
Meglitinides (e.g. repaglinide)	☐
Glitazones (e.g. rosiglitazones)	☐
Lain-lain: _____	☐
Insulin	☐
Anti-platelets	**Ya**
Acetyl salicylate acid	☐
Ticlopidine	☐
Lain-lain: _____	☐

Anti-hypertensives	Ya
ACE-Inhibitor	☐
ARB	☐
Beta-blockers	☐
Calcium channel blockers	☐
Diuretics	☐
Alpha-blockers	☐
Centrally acting	☐
Lain-lain: _____	☐
Lipid-lowering agents	**Ya**
Statin	☐
Fibrate	☐
Lain-lain: _____	☐

Tandatangan: Tarikh audit: _____

Nama: _____

* ***Estimate/presumed:*** Jika tarikh tidak diketahui, sila isikan 30/06/yyyy dan tandakan kotak bersebelahan

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Appendix 2

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QA INDICATOR ACHIEVEMENT REPORT
PUBLIC HEALTH PROGRAM

Activity : Disease Control (Non-Communicable)
Indicator : **Quality of Diabetes Care at MOH Healthcare Facilities**
(to be filled by District Medical Officer of Health)

State : _____ Year : _____

District : _____

No.	Clinic	Sample size	No. of patients HbA_{1c} < 7.0%	% of patients HbA_{1c} < 7.0%	SIQ
1.					Yes / No
2.					Yes / No
3.					Yes / No
4.					Yes / No
5.					Yes / No
6.					Yes / No
7.					Yes / No
8.					Yes / No
9.					Yes / No
10.					Yes / No
	TOTAL				

Proportion with HbA_{1c} < 7.0% for the district : _____%
SIQ (proportion < 30%) for the district : Yes /No

Signature : Date of report : _____

Name : _____

Designation : _____

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Appendix 3

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MODEL OF GOOD CARE

Step No.	Process of Care	Criteria	Standard
A.	**Baseline Data**		
1.	**Registry of Patients**	**All diabetic patients should be registered in diabetes registry in health clinic**	**100%**
B.	**Treatment**		
1.	Counselling & health education	Counselling & health education is given and reinforced by healthcare personnel **during each visit** Contents: • Diet • Exercise • Medication • Complications (acute and chronic) • Self-care/SBGM/foot care • Stop smoking • Problem solving skills • Psychosocial adaptation to diabetes	100%
		All diabetic patients are educated regarding diabetes complication at least once a year	100%
2.	Pharmacological intervention	All pharmacological intervention should follow criteria in CPG Either oral hypoglycaemic agents or insulin, or a combination of both	100%
C.	**Follow-up Process**		
1.	Assessment of glycaemic control	Either FBS or RBS or 2HPP, each visit	100%
		HbA_{1c}, annually	100%
2.	Recognition of complication	All examinations should be done 6 monthly • HbA_{1c} • Urine albumin • Urine microalbumin (if urine albumin negative) • Sr. Creatinine	100%
		All examinations should be done annually • ECG • Fundus Examination • Fasting Serum Lipid	100%
3.	Referral to Medical Officer	All diabetic patients must be seen by FMS or MO at least once annually	100%
4.	Defaulter Management	All defaulter cases must be identified and trace or contacted within 2 weeks of appointment date given depending on the severity	100%

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Appendix 4

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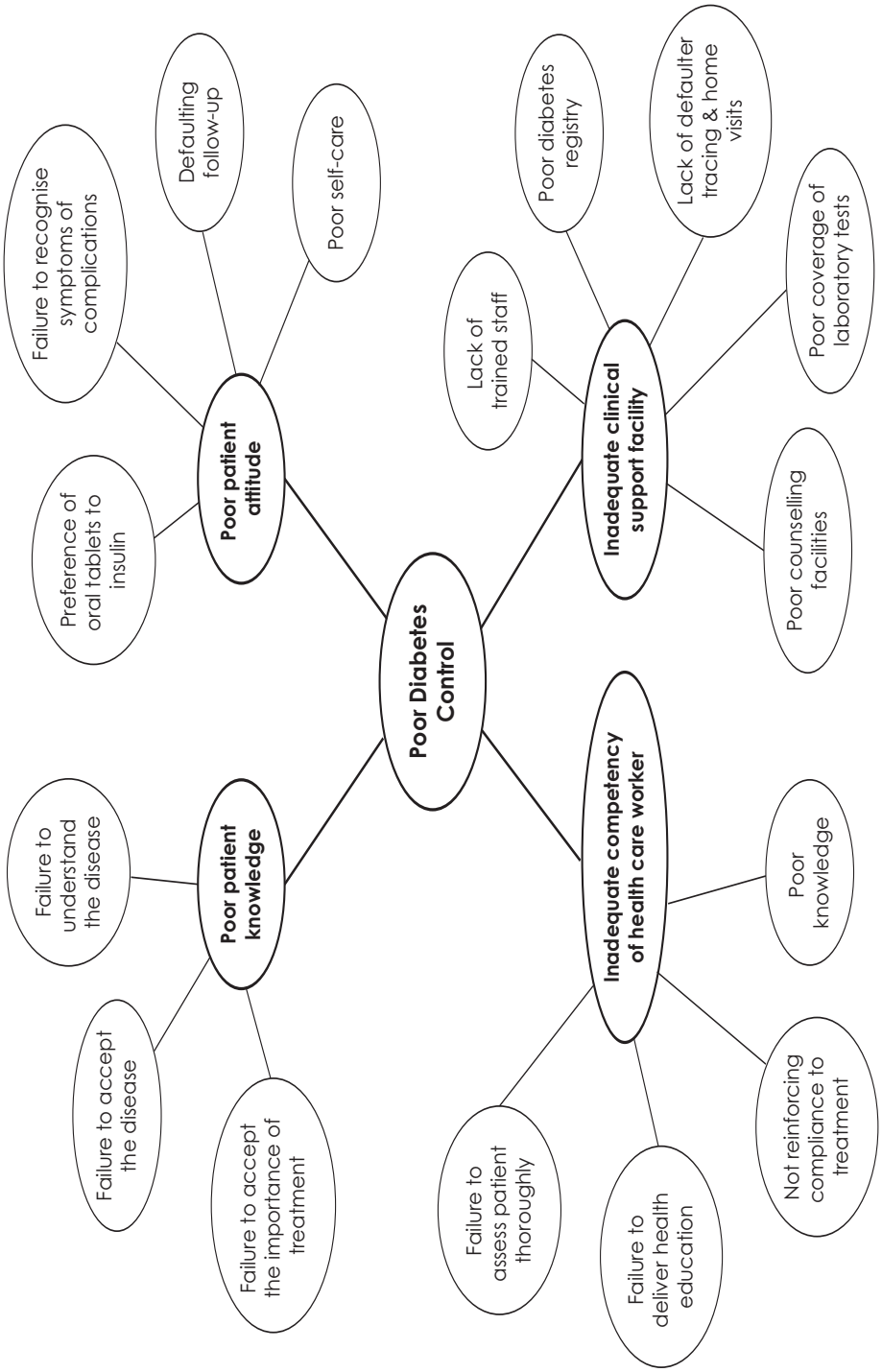
CAUSE EFFECT ANALYSIS



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Appendix 5

AN EXAMPLE OF VARIABLES, STANDARDS, SOURCES OF DATA, METHODS OF DATA COLLECTION, SAMPLE UNITS, AND SAMPLE SIZES FOR INVESTIGATION OF DIABETICS WITH POOR GLYCAEMIC CONTROL

No.	Factor	Variable	Source of Data	Method of Collection	Sample Unit	Sample Size	Standard	Finding
1.	Poor history taking	• Other risk factors • Symptoms of hyper/ hypoglycaemia	Diabetic Records	Review Records	Poorly controlled cases from clinic	According to *MAS & expected findings (Not less than 30)	100%	
2.	Inadequate screening	• Weight/BMI • Blood pressure • Waist circumference • Urine for albumin • HbA1c • Fasting serum lipids • Renal profile	Diabetic Records	Review Records	"	"	100%	
3.	Poor documentation	Complete recording in the diabetic records	Diabetic Records	Review Records	"	"	80%	
4.	Appointment for follow-up	Appointment given (Yes/No)	Diabetic Records	Review Records	"	"	100%	
5.	Poor follow-up	Inappropriate follow-up appointments for diabetics with poor glycaemic control	Diabetic Records	Review Records		"	80%	
6.	Improper or non use of checklist (in green card or book)	Usage of checklist (Yes/No)	Diabetic Records	Review Records	"	"	100%	
7.	Ignorance of patients (poor attitude)	KAP study of patients	KAP Questionnaire	Interview	"	"	As determined by KAP study methodology	
8.	Lack of training	% of staff receiving training on patient management on a regular basis	Training Records	Review Records	Relevant staff at health clinic	"	100%	

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No.	Factor	Variable	Source of Data	Method of Collection	Sample Unit	Sample Size	Standard	Finding
9.	Poor knowledge and attitude of staff	KAP study of staff	KAP Questionnaire	Interview	Relevant staff at health clinic	All relevant staff	As determined by KAP study methodology	
10.	Missing or no clinical guidelines	Availability of guidelines	Audit of facility	Observation	Health clinic	All clinics in the district	100%	
11.	Lack of supervision	Number of supervisory visits made by any supervisors to clinic/staff	Visitor's Record Book	Review records or interview staff	Health clinic	All clinics in the district	100%	

Note: MAS – Maximum Acceptable Standard

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Appendix 6

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KAJIAN PENGGUNAAN
CLINICAL PRACTICE GUIDELINES FOR TYPE 2 DIABETES

Seksyen 1 : Maklumat Klinik dan Anggota Kesihatan

Nama anggota kesihatan : _____

Klinik kesihatan : _____

Kategori klinik kesihatan : ☐ FMS ☐ MO ☐ AMO

Jawatan :
- ☐ FMS (Pakar perubatan keluarga)
- ☐ MO (Pegawai perubatan & kesihatan)
- ☐ AMO (Penolong pegawai perubatan)
- ☐ JK (Jururawat kesihatan)

Jantina : ☐ Perempuan ☐ Lelaki

Umur : _____ tahun

Bangsa : ☐ Melayu ☐ Cina ☐ India ☐ Lain-lain

Tempoh perkhidmatan : _____ tahun

Tempoh bekerja di klinik ini : _____ tahun

Latihan pengurusan diabetes yang pernah dihadiri:

- ☐ Diagnosa diabetes
- ☐ Kawalan diabetes
- ☐ Ujian makmal dan interpretasi
- ☐ Pencegahan dan meminimakan komplikasi
- ☐ Pengurusan komplikasi
- ☐ Diabetes monitoring & self-care
- ☐ QAP diabetes

Tempoh terakhir menghadiri latihan:

☐ <3 bulan ☐ 3-6 bulan ☐ >6 bulan

Seksyen 2 : Senarai semak penggunaan CPG

No.	Checklist	Appropriate	Not appropriate	Not aplicable	Remarks
	Appropriate therapy				
2a	Metformin started in overweight patient				☐Not done ☐Delayed ☐Others - specify _____
2b	Metformin stopped if serum creatinine >150 mol/L or creatinine clearance > 30				☐Not done ☐Sr. creatinine not done ☐Delayed ☐Others - specify _____
3a	Dose of medication is increased when monotherapy failed				☐Not done ☐Delayed ☐Others - specify _____
3b	Combination treatment started when monotherapy failed				
4a	Insulin started when maximum OHA failed				☐Not done ☐Delayed ☐Others - specify _____
4b	BIDS given with OHA continues				☐Not done ☐Delayed ☐Others - specify _____
4c	Full insulin treatment started when BIDS failed				☐Not done ☐Delayed ☐Others - specify _____
5	ACE inhibitor started in patient with microalbuminuria				☐Not done ☐Delayed ☐Others - specify _____
6a	Lipid lowering agents started when total cholesterol > 5.2 mmol/L				☐Not done/TC x done ☐Delayed ☐Others - specify _____
6b	Lipid lowering agents started when triglycerides level > 1.7 mmol/L				☐Not done/TG x done ☐Delayed ☐Others - specify _____
7a	Anti-hypertensive started when BP > 130/85				☐Not done ☐Delayed ☐Others - specify _____

No.	Checklist	Appropriate	Not appropriate	Not aplicable	Remarks
	Appropriate Referral				
1	Endocrinologist/Diabetologist				☐Not done ☐Delayed ☐Others - specify _____
2	MA to MO				☐Not done ☐Delayed ☐Others - specify _____
3	MO to FMS				☐Not done ☐Delayed ☐Others - specify _____
4	Opthalmologist				☐Not done ☐Delayed ☐Others - specify _____
5	Cardiologist				☐Not done ☐Delayed ☐Others - specify _____
6	Nephrologist				☐Not done ☐Delayed ☐Others - specify _____
7	Orthopaedic surgeon				☐Not done ☐Delayed ☐Others - specify _____

No.	Checklist	Appropriate	Not appropriate	Not aplicable	Remarks
	Patient-Health Provider Communication				
1	About diabetes mellitus				☐Not done/recorded ☐Delayed ☐Others - specify _____
2	Diabetic diet				☐Not done/recorded ☐Delayed ☐Others - specify _____
3	Smoking cessation				☐Not done/recorded ☐Delayed ☐Others - specify _____
4	Activity/exercise advice				☐Not done/recorded ☐Delayed ☐Others - specify _____
5	Body weight advice				☐Not done/recorded ☐Delayed ☐Others - specify _____
6	Regular follow-up and/or medication advice				☐Not done/recorded ☐Delayed ☐Others - specify _____
7	Foot care advice				☐Not done/recorded ☐Delayed ☐Others - specify _____
8	Pre-pregnancy counselling				☐Not done/recorded ☐Delayed ☐Others - specify _____

Terima kasih di atas kerjasama anda di dalam menjawab SEMUA soalan di atas.

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Appendix 7

BORANG SOAL SELIDIK PESAKIT DIABETES

Seksyen 1: Data Sosiodemografi

1. Nama : _____
2. No. KP : _____
3. Alamat : _____

   _____
4. No. tel. rumah : _____
5. No. tel. bimbit : _____
6. No. pendaftaran klinik : _____
7. Tempat rawatan : (Daerah) _____

   (Klinik) _____
8. Umur : _____ tahun
9. Jantina : ☐ Lelaki ☐ Perempuan
10. Bangsa : ☐ Melayu ☐ Cina ☐ India ☐ Lain-lain
11. Status perkahwinan : ☐ Bujang ☐ Berkahwin ☐ Cerai ☐ Balu
12. Pekerjaan : ☐ Kerajaan ☐ Swasta ☐ Sendiri

    ☐ Pencen ☐ Suri rumah ☐ Lain-lain - nyatakan:

    _____
13. Tahap pendidikan : ☐ Tiada pendidikan formal ☐ Sekolah rendah

    ☐ Sekolah menengah ☐ IPT
14. Jumlah pendapatan isirumah : RM _____ sebulan

Seksyen 2: Riwayat Kesihatan

1. Tarikh diabetes didiagnosa (hh/bb/tttt): ___/___/_____

2. Tempoh mengidap diabetes:_____tahun

3. (a) Adakah ahli keluarga anda (selain suami/isteri) mengidap diabetes?

   ☐ Ya ☐ Tidak

   (b) Jika Ya, nyatakan:

   ☐ Ibu ☐ Bapa ☐ Adik-beradik

4. Adakah anda merokok?

   ☐ Tidak pernah ☐ Masih merokok ☐ Berhenti

   Jika sudah berhenti, terus ke soalan (5)
   Jika masih merokok, terus ke soalan (6)

5. Jika sudah berhenti, berapa lama tempoh berhenti?

   _____ tahun

6. (a) Jika masih merokok, sudah berapa lama merokok?

   _____ tahun_____bulan

   (b) Berapa batang rokok sehari?

   _____ batang

   (c) Jenis rokok?

   ☐ daun ☐ berjenama ☐ cerut ☐ paip

   (d) Adakah anda pernah cuba berhenti merokok?

   ☐ Ya ☐ Tidak

   (e) Jika Ya, nyatakan sebab gagal berhenti:

   _____

   _____

Seksyen 3 : Soal Selidik Pengetahuan

	Betul	Salah	Tidak tahu
1. Di antara tanda gula dalam darah yang tinggi bagi pesakit kencing manis adalah:			
(a) Kerap membuang air kecil	☐	☐	☐
(b) Sentiasa berasa dahaga	☐	☐	☐
(c) Rambut gugur	☐	☐	☐
(d) Susut/turun berat badan	☐	☐	☐
(e) Perdarahan dalam air kencing	☐	☐	☐
(f) Kerap bangun malam untuk buang air kecil	☐	☐	☐
2. Tanda-tanda yang menunjukkan bahawa gula dalam darah yang terlalu rendah:			
(a) Berpeluh terutama pada tangan	☐	☐	☐
(b) Mengantuk	☐	☐	☐
(c) Cirit birit	☐	☐	☐
(d) Terasa seram sejuk	☐	☐	☐
3. Di antara komplikasi (kesan buruk) penyakit kencing manis adalah:			
(a) Kegagalan/kerosakan buah pinggang	☐	☐	☐
(b) Kebutaan (buta mata)	☐	☐	☐
(c) Kanser payu dara	☐	☐	☐
(d) Penyakit kaki yang boleh menyebabkan ia dipotong	☐	☐	☐
(e) Serangan sakit jantung	☐	☐	☐
(f) Angin ahmar (strok/lumpuh)	☐	☐	☐

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Seksyen 4 : Soal Selidik Sikap

		Tidak setuju	Tidak pasti	Setuju
1.	Anda perlu tahu tahap gula dalam darah anda	☐	☐	☐
2.	Anda boleh berusaha untuk mengawal penyakit anda	☐	☐	☐
3.	Anda boleh mengukur sendiri gula dalam darah di rumah	☐	☐	☐
4.	Anda tidak perlu mengawal pemakanan (berpantang) jika telah mengambil ubat kencing manis	☐	☐	☐
5.	Anda perlu melakukan senaman bagi mengekalkan kesihatan yang baik	☐	☐	☐

Seksyen 5 : Soal Selidik Amalan

Adakah anda:

		Tidak pernah	Kadang-kadang	Kerapkali	Sentiasa
1.	Mengambil ubat mengikut kekerapan yang ditetapkan?	☐	☐	☐	☐
2.	Mengambil ubat mengikut dos yang ditetapkan?	☐	☐	☐	☐
3.	Mengukur sendiri gula dalam darah di rumah?	☐	☐	☐	☐
4.	Makan makanan berserat seperti sayuran?	☐	☐	☐	☐
5.	Makan makanan bergoreng?	☐	☐	☐	☐
6.	Menjalankan aktiviti fizikal?	☐	☐	☐	☐
7.	Makan makanan bergula?	☐	☐	☐	☐
8.	Minum minuman bergula?	☐	☐	☐	☐

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Appendix 8

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CHECKLIST

Clinical Equipments For Diabetes Management

No.	Equipment	Yes	No	Remarks
1.	Glucometer set			
2.	Lancets			
3.	Blood pressure set/monitor			
4.	Stethoscope			
5.	Cholesterol-meter set			
6.	Weighing maching + height measurement			
7.	Snellen chart with pinhole			
8.	Opthalmoscope			
9.	CNS diagnostic set (tendon hammer, cotton wool, pin)			
10.	Tuning fork (C128)			
11.	Urine albumin strips			
12.	Mydriacyl eye drops			
13.	Stool for foot examination			
14.	Monofilaments			
15.	HbA1c machine (Lab)			
16.	Microalbumin machine (Lab)			
17.	BMI chart			
18.	ECG machine			
19.	Funduscope or fundus camera			
20.	Biochemistry analyzer (Lab)			

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Appendix 9

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QA/SIQ/DM/PKD/2008

QA INDICATOR SIQ INVESTIGATION REPORT

Activity : Disease Control (Non-Communicable)
Indicator : **Quality of Diabetes Care at MOH Healthcare Facilities**
(to be filled by District Medical Officer of Health)

Standard : **30%**

State : _____ Year : _____

District : _____ Standard Achieved : _____ **%**

No.	Clinic with SIQ		Weaknesses identified	Remedial measures		Note
	Clinic	Standard achieved		Action taken	Will be implemented	
1.						
2.						
3.						

Signature :

Date of report : _____

Name : _____

Designation : _____

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QA/SIQ/DM/JKN/2008

QA INDICATOR SIQ INVESTIGATION REPORT

Activity : Disease Control (Non-Communicable)
Indicator : **Quality of Diabetes Care at MOH Healthcare Facilities**
(to be filled by State Primary Care Officer)

Standard : **30%**

State : _____

Year : _____

Standard Achieved : _____ **%**

No.	District with SIQ		Weaknesses identified	Remedial measures		Note
	District	Standard achieved		Action taken	Will be implemented	
1.						
2.						
3.						

Signature :

Date of report : _____

Name : _____

Designation : _____

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