

SUPPLEMENTARY DATA

From Hong Kong Diabetes Register to JADE Program to RAMP-DM for data-driven actions (SUPPLEMENTARY DATA)

Notes for Supplementary Figure 1.

The self-explanatory Joint Asia Diabetes Evaluation (JADE) personalized report is complete with key information including risk categories, demographic (notably age, disease duration), summary of risk factors and complications, 5-year probability of individual events, trends of control of HbA_{1c}, blood pressure, LDL-cholesterol, and body weight together with recommended goals and decision support and medication list, available in eight languages. One version is generated for patients with recommendations focusing on self-management and adherence to medication, whilst another version is generated for healthcare providers focusing on early intervention and referral for structured patient education program.

(B) An example of the JADE personalized report

Risk category based on modifiable risk factors, risk scores and complications.

Age, gender, disease duration and occupations.

Trends of risk factor control (blood glucose, blood pressure, blood cholesterol (ABC) and body weight) with decision support.

The summary report of risk categorization, complications and risk factors are based on the results of the latest COMPREHENSIVE ASSESSMENT (CA) or FOLLOW UP (FU). The purpose of this report is to help doctors or healthcare professionals and people with diabetes start a dialogue, make informed decisions, individualize treatment goals and formulate a management plan.

Risk Category **Recommendations**

3 **Overall risk for diabetic complications: High**
 High risk for future diabetes complications and/or Low eGFR (<60 ml/min/1.73²) and/or having ≥ 3 risk factors.

as of 19-Aug-2013

This report is specially prepared for you by your doctor using the JADE program. Please make every effort to understand and act on the recommendations.

Date of most recent contact: 19-Aug-2013 **Disease duration:** 2 years

Gender: Female **Age:** 61 **Ethnicity:** Chinese **Occupation:** Housewife

Recommendations

HbA_{1c}

- On target for BG control.

HbA_{1c} (mmol/mol)

BP

- BP on target.

LDL-C (Low-Density Lipoprotein Cholesterol)

- Acceptable Blood cholesterol control. May need lower value if other risk factors such as high BP coexists.

Weight and Waist Circumference

- Aim to accumulate at least 150 minutes of brisk walking a week, increase level of activities at home and form of transportation to and from work.
- Avoid energy dense food e.g. those high sugar and fat content, increase intake of vegetables and fibres, reduce salt intake.
- 5-15% of weight loss will significantly improve your profile of risk factors, avoid fluctuating changes in BW, aim at losing 0.5-1 kg weight loss per week.
- Overweight.

Cardiovascular-Renal Complications

- Patient does not have any cardiovascular-renal complications.

Risk Factors

- Cholesty
- Albuminuria
- Dyslipidaemia: On lipid-lowering drug

5-year Probability of Diabetes Complications

The 5-year probability of diabetes complications is based on published results derived from the Hong Kong Diabetes Register and may not be applicable to all ethnic groups or patients living outside Hong Kong.

The 5-year probability of diabetes complications are based on data available at the latest COMPREHENSIVE ASSESSMENT (CA) or FOLLOW UP (FU) and will only be generated if required data are available.

The latest treatment targets and testing procedures are for recommendations only and should be individualized based on both doctors and patients' own recommendations to set and work towards a realistic goal to improve risk factor control and reduce risk for complications.

For more information, please visit the following websites: www.af.org, www.diabetes.org

Note: Different risk parameters may have different weightings, thus within the same risk level, there can be a wide range of 5-year probability of diabetes complication.

CHD 0.86% as of 19-Aug-2013

Stroke 4.02% as of 19-Aug-2013

ESRD 1.72% as of 19-Aug-2013

Heart Failure 0.99% as of 19-Aug-2013

Prescription Details

Generic drug name	Dosage	Frequency	Route	Status
Digoxin	250 mcg	(od) (daily)	Oral	Renewed 19-Aug-2013
Aspirin	80 mg	(od) (daily)	Oral	Renewed 19-Aug-2013
Simvastatin	5 mg	(bedtime)	Oral	Renewed 19-Aug-2013

Next Visit

Agreed Date for Next Contact: _____

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Summary of risk factors & complications.

5-year probability of critical illness based on validated risk equations.

Summary of medication.

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Supplemental Notes for Figure 2.

Data of the health workforce availability were retrieved from the Organisation for Economic Co-operation and Development Health at a Glance 2017 (1). The proportions of patients with treatment goals attainment were based on audit reports and national and epidemiological surveys (as appropriate) with some variations in data reporting and healthcare settings (2-14). For HbA_{1c} goal, the UK NDA used HbA_{1c}≤7.5% (58 mmol/mol) (4). For BP goal, the Swedish NDR used systolic BP<140 mmHg (2); the UK NDA used BP≤140/80 mmHg (4); the JDDM Study Group used systolic BP<130 mmHg (7). For LDL-C goal, the Swedish NDR used TC<6.2 mmol/L (2); the Australian audit report used LDL-C<2.5 mmol/L (3); the Canadian DM-SCAN survey used LDL-C<2 mmol/L (5); the UK NDA used TC<5 mmol/L (4); the Taiwan nationwide survey used LDL-C<2.6 mmol/L or TC<4.1 mmol/L (10); the China CCMR-3B study used TC<4.5 mmol/L (11, 12). For all ABC goals, the USA NHANES used the current definition plus smoking cessation (6); the UK NDA used HbA_{1c}≤7.5% (58 mmol/mol), BP≤140/80 mmHg, TC<5 mmol/L, and statin use (4); the Korean epidemiological survey used the current definition plus body mass index 18.5-24.9 kg/m² (8).

Abbreviations

BP, blood pressure; CCMR-3B, China Cardiometabolic Registries Nationwide Assessment of Cardiovascular Risk Factors: Blood Glucose, Blood Pressure, and Blood Lipid – 3B; DM-SCAN, Diabetes Mellitus Status in Canada; JDDM, Japan Diabetes Clinical Data Management; LDL-C, low-density lipoprotein cholesterol; NDA, National Diabetes Audit; NDR, National Diabetes Register; NHANES, National Health and Nutritional Examination Survey. To convert TC or LDL-C to mg/dL, multiply by 38.67.

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