

ผนวก ข

Transition probabilities and risk adjustment factors

ตารางที่ ข1.

ค่า Transition probability ที่เปลี่ยนแปลงจากการลดค่า HbA_{1c} ลง 1%

Types of complications	Transition	References	Risk reduction
Cardiovascular diseases	Congestive heart failure	1	16%
	Myocardial infarction	1,2,3	14%
	Angina	2	10%
Neuropathy	Onset of neuropathy	4	37%
Peripheral vascular diseases	Onset PVD	5	43%
Nephropathy	Onset of MA	4	43%
	MA to GPR	4	37%
	GPR to ESRD	4	37%
	ESRD to dead	4	13.3%
Retinopathy	Onset of BDR	5	37%
	BDR to PDR	5	37%
	PDR to SVL	5	37%
	Onset ME	5	37%
Cataract	Onset of cataract	1	19%

PVD = Peripheral vascular disease, MA = Microalbuminurea

GPR = Gross protein urea, ESRD = End-stage renal disease

BDR = Borderline diabetes retinopathy, PDR = Proliferative diabetes retinopathy

SVL = Severe vision loss, ME = Macular edema

ตารางที่ ๑2.

Summary of risk adjustment in the myocardial infarction (MI) sub-model

Transition Probability	Glycemic control adjustment		Aspirin treatment adjustment		ACEI treatment adjustment		Statin treatment adjustment		Renal function adjustment	
	Details	Ref.	Details	Ref.	Details	Ref.	Details	Ref.	Details	Ref.
First MI	Based on HbA _{1c}	1	61% risk reduction	6	No effect	None	31% risk reduction	7	Relative risk if: MR developed = 1.96 GPR developed = 2.73 ESRD developed = 2.73	8
Recurrent MI	No proven link	NA	32% risk reduction	9	22% risk reduction	10	81% risk reduction	7	As above	8
Sudden death after MI	No proven link	NA	No effect	None	No effect	11	53% risk reduction	7	No proven link	NA
Death in 12 months after MI	Relative risk with IIT: 1 Relative risk with CIT: 1.3684	3	No effect	None	26% risk reduction	11	53% risk reduction	7	No proven link	NA
Long-term mortality after MI	No proven link	NA	32% risk reduction	9	26% risk reduction	11	53% risk reduction	7	<65 years, Risk multiplier= 0.0818182 65-75 years, Risk multiplier= 1 Over 75 years, Risk multiplier= 1.348485	12

ที่มาของข้อมูล:

1. Stratton IM, Adler AI, Neil HA, Matthews DR, Manley SE, Cull CA et al. "Association of glycemia with macrovascular and microvascular complications of type 2 diabetes (UKPDS 35)". BJM Vol.321, No.7258 (2000): 405-412
2. Qiao Q, Pyorala K, Nissinen A, Linstrom J, Tilvis R, Toumilehto J, "2-hour glucose is a continuous and independent risk predictor for incident coronary heart disease and stroke and cardiovascular mortality". Eur Heart J Vol. 23, No. 16 (2002): 1267-1275
3. Almbrand B, Johannesson M, Sjostrand B, Malmberg K, Ryden L. "Cost effectiveness of intense insulin treatment after acute myocardial infarction in patient with diabetes mellitus; result from the DIGAMI study". Eur Heart J Vol.21, No.9 (2000): 733-739
4. UKPDS group. "Effect of intensive blood glucose control with metformin on complications in overweight patients with type 2 diabetes (UKPDS 34)". Lancet 352 (1998): 854-865
5. Stratton IM, Kohner EM, Aldington SJ, Turner RC, Holman RR, Manley SE, et al. UKPDS 50: risk factors for incidence and progression of retinopathy in type 2 diabetes over 6 years from diagnosis. Diabetologia Vol.44, No.2 (2001): 156-163
6. American Diabetes Association. Aspirin therapy in diabetes. Diabetes Care Vol.25, No.90001 (2002): S78-S79.
7. Shepherd J, Blauw GJ, Murphy MB, Bollen EL, Buckley BM, Cobbe SM et al. Pravastatin in elderly individuals at risk of vascular disease (PROSPER): a randomized controlled trial. Lancet Vol.360, No.9346 (2002):1623-1630
8. Valmadrid CT, Klein R, Moss SE, Klein BE. The risk of cardiovascular disease mortality associated with microalbuminuria and gross proteinuria in person with older onset diabetes mellitus. Arch Intern Med Vol.160, No.8 (2000): 1093-1100.
9. Buring JE, Hennekens CH. Prevention of cardiovascular disease risks and benefits of aspirin. J Gen Intern Med Vol.5, 5 suppl. (1990): s54-s57

10. Heart Outcomes Prevention Evaluation (HOPE) Study Investigators. Effects of ramipril on cardiovascular and microvascular outcomes in people with diabetes mellitus: result of HOPE study and MICRO-HOPE substudy. Heart Outcomes Prevention Evaluation Study Investigator. Lancet Vol.355, No.9200 (2000): 253-259
11. Gustafsson I, Torp-Pederson C, Kober L, Gustafsson F, Hildebrandt P. Effect of the angiotensin-converting enzyme inhibitor trandolapril on mortality and morbidity in diabetic patients with left ventricular dysfunction after acute myocardial infarction. Trace Study Group. J Am Coll Cardiol Vol.34, No.1 (1999): 83-83.
12. Heelitz J, Bang A, Karlson BW. Mortality, place and mode of death and reinfarction during a period of 5 years after acute myocardial infarction in diabetic and nondiabetic patients. Cardiology Vol.87, No.5 (1996): 423-428.