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APPENDICES

# **APPENDIX I**

#### **Risk Factors of Diabetic Nephropathy**

There are 3 major predictors of renal disease progression as follows:

1. Metabolic Control

Poor glucose control, elevated plasma cholesterol levels and high dietary intake adversely affect the development and progression of diabetic renal disease.

2. Hypertension

Hypertension, in addition to being a direct initiating cause of renal disease, often arises as a result of disease-induced glomerular damage such as diabetic nephropathy. Thus, hypertension, diabetes mellitus and renal disease are linked in this manner.

3. Microalbuminuria

Microalbuminuria is an important marker of renal disease progression in diabetes. It strongly predicts the future development of macroalbuminuria and renal insufficiency, and, in addition, is an independent risk factor for renal mortality in both IDDM and NIDDM. It is also an independent risk factor cardiovascular morbidity and mortality as well as all-cause mortality in diabetic patients.

# **APPENDIX II**

## Treatment of Diabetic Nephropathy

To date, treatment of Diabetic Nephropathy has taken 3 approaches. Firstly, intensified insulin therapy and tight glycaemic control has reduced the progression of microalbuminuria, but has not modified the course of macroalbuminuria. Secondly, dietary protein restriction has occasionally slowed the progression of microalbuminuria or macroalbuminuria, but long-term patient compliance is poor. Thirdly, antihypertensives have been found to slow or postpone the deterioration in renal function in both microalbuminuria and macroalbuminuria and, together with strict glycaemic control, they form the most effective means of delaying disease progression. Reducing blood pressure can extend the interval between onset of macroalbuminuria and the need for renal replacement therapy. At present, ACE-Inhibitors are regarded as the agents of choice for initial therapy in diabetic patients with microalbuminuria or macroalbuminuria, particularly in normotensive and mildly hypertensive diabetic patients, since they combine renoprotection moderately improved insulin sensitivity and glucose tolerance.

## BIOGRAPHY

Miss Phantipa Sakthong was born on March 25<sup>th</sup>, 1970 at Bangkok, Thailand. She finished a Bachelor of Pharmaceutical Science at Chulalongkorn University in 1994.

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