

Reducing/Eliminating the risk of cardiovascular disease in India due to diabetes and other causes

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IDF Diabetes Atlas 5th Edition Country Estimates Table		
Country/territory	2011 India	2030 India
Adult Population (20-79) in 1000s	737003,33	1017527,03
Diabetes cases (20-79) in 1000s	61258,43	101203,18
Diabetes national prevalence (%)	8,31	9,95
Diabetes related deaths (20-79)	983203	
IGT cases (20-79) in 1000s	20467,5	32162,74
IGT national prevalence (%)	2,78	

Population-based diabetes studies consistently show that a substantial proportion of those found to have diabetes had not been previously diagnosed. Many people remain undiagnosed largely because there are few symptoms during the early years of type 2 diabetes or symptoms may not be recognized as being related to diabetes.

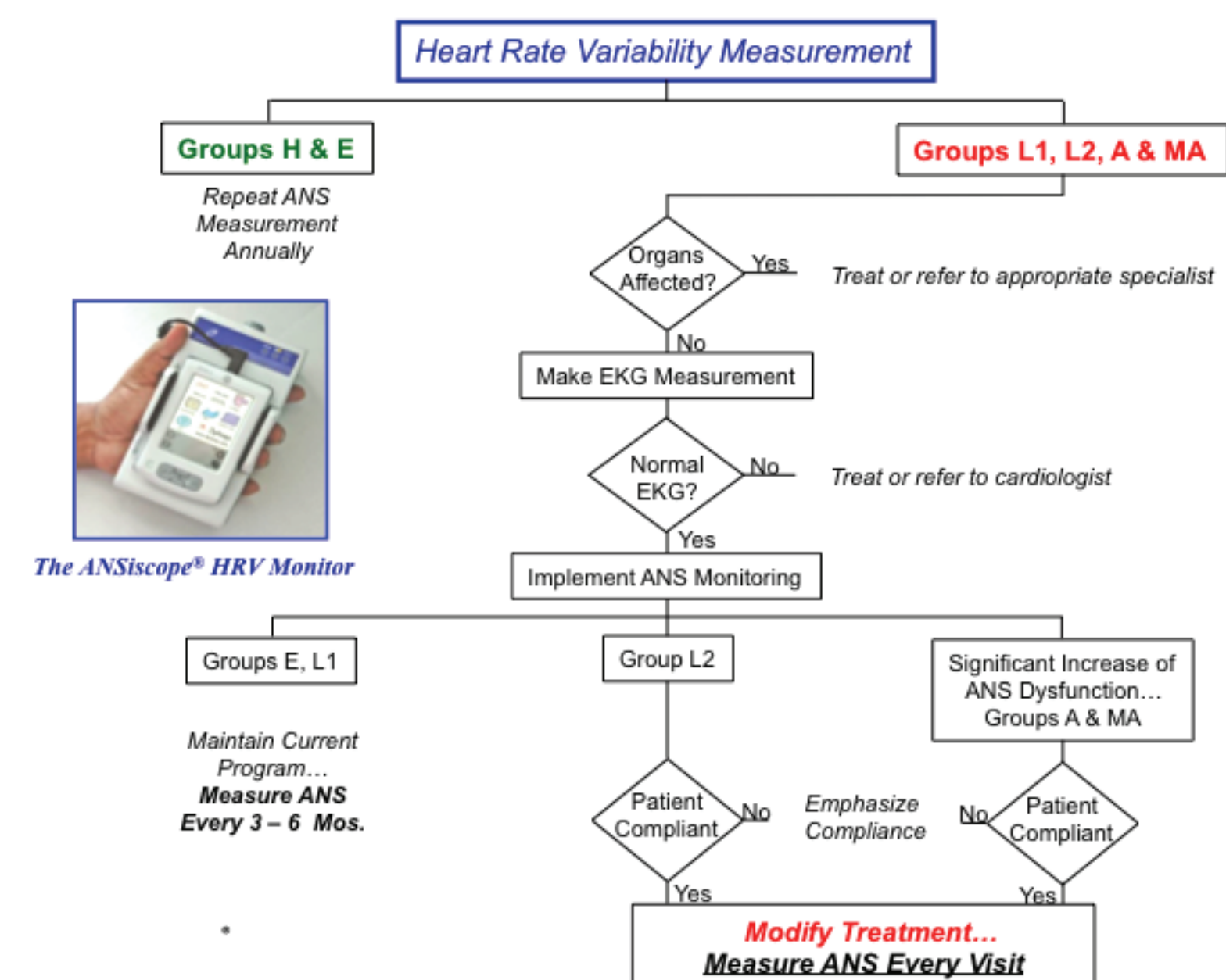
In addition to diabetes, the condition of impaired glucose tolerance (IGT), in which blood glucose level is higher than normal but not as high as in diabetes, is also a major public health problem. People with IGT have a higher risk of developing diabetes as well as an increased risk of cardiovascular disease.

THE WAY FORWARD

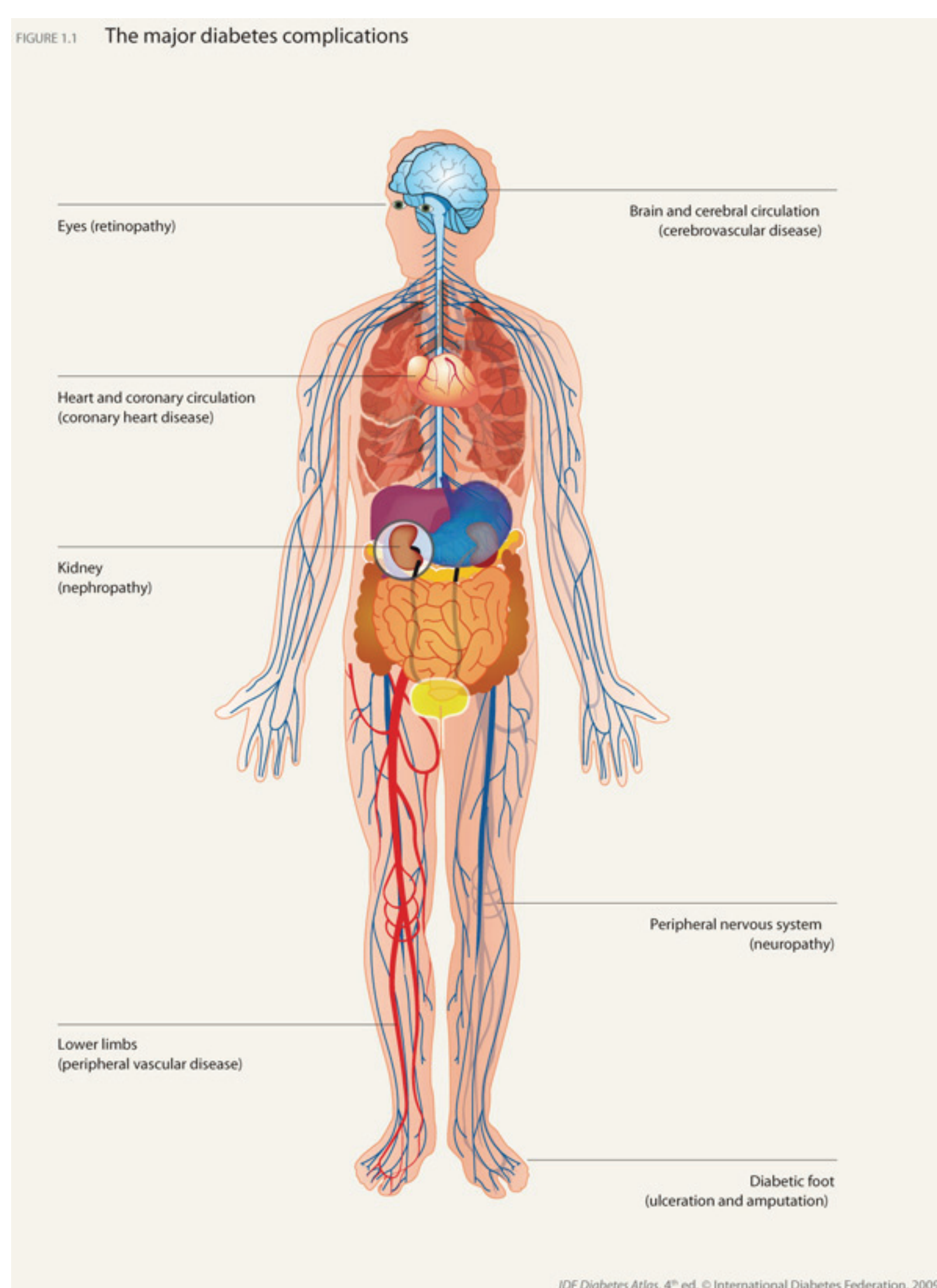
1. Early Detection – now possible through availability of new technology
2. Ongoing Monitoring – possible through same technology
3. Treatment – possible through multiple means but mainly through Nobel prize winning discovery

DETECTION

Implement ADA Standard of Care



COMPLICATIONS

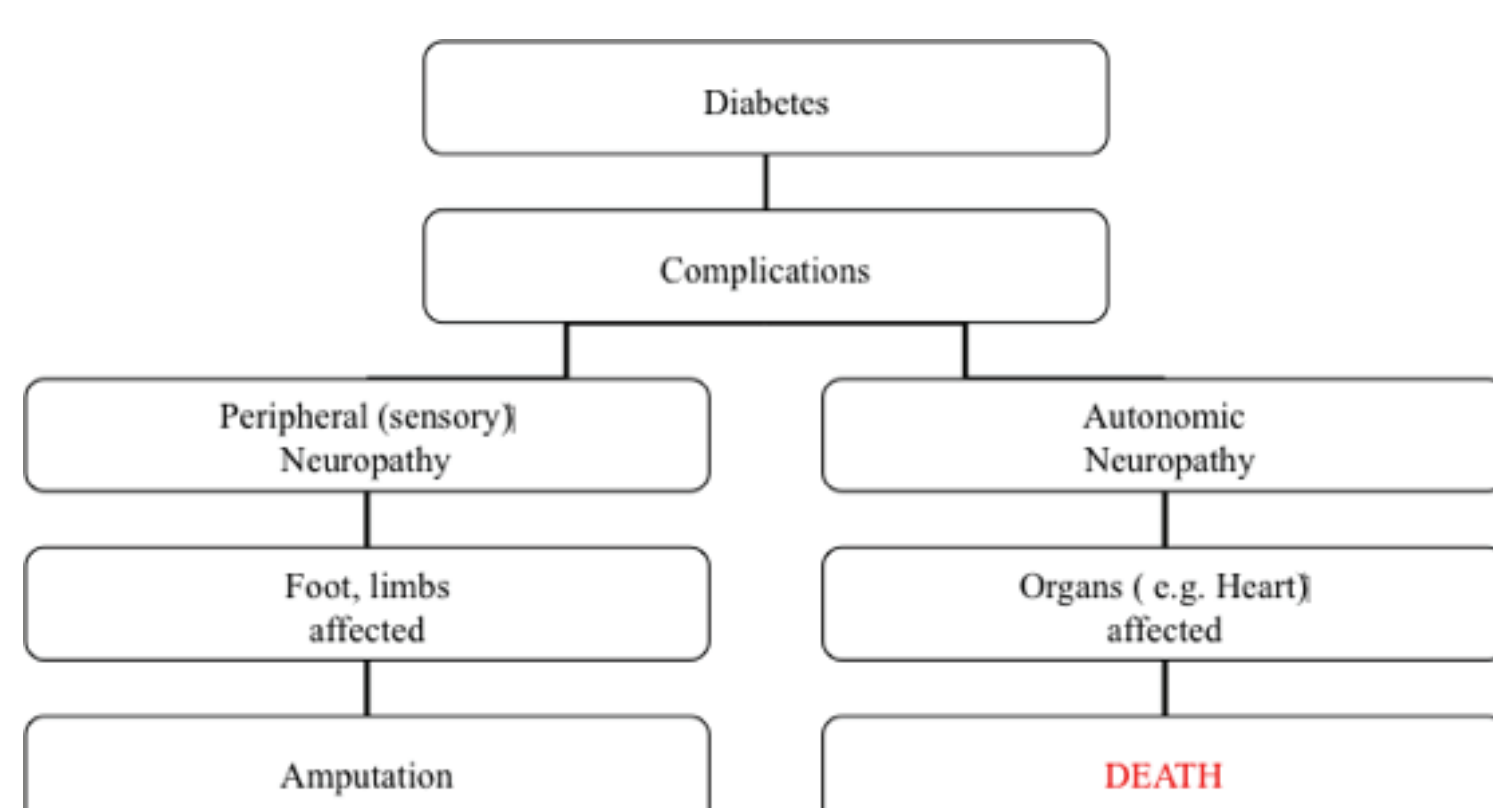


Complications due to diabetes are a major cause of disability, reduced quality of life and death. Diabetes complications can affect various parts of the body manifesting in different ways for different people.

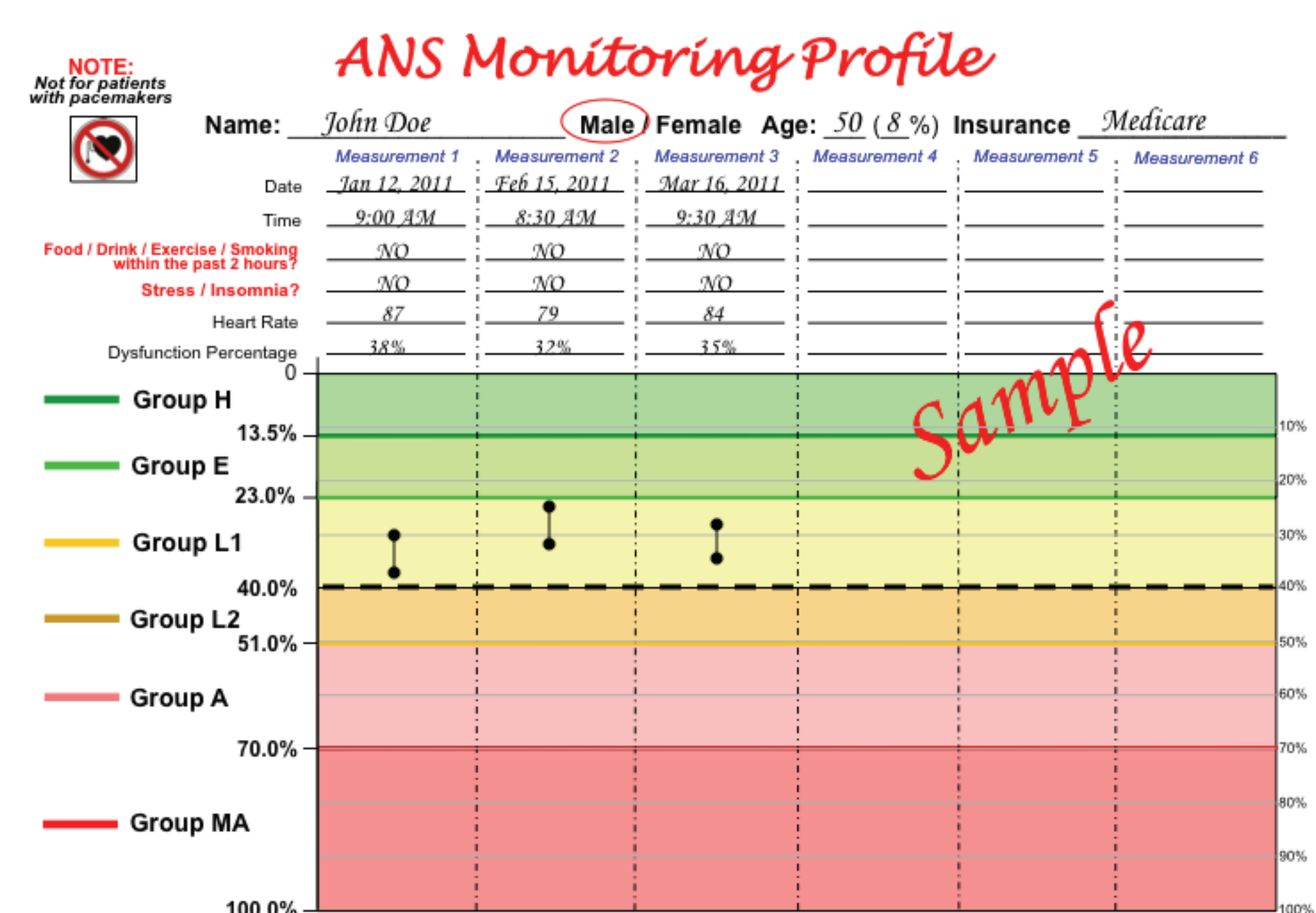
There are no internationally agreed standards for diagnosing and assessing diabetes complications. Due to different methods of assessing the presence of these complications it is difficult to make comparisons between different populations. However, it is clear that they are very common, with at least one complication present in a large proportion of people (50% or more in some studies) at the time of diagnosis. All of the complications are serious but autonomic neuropathy is fatal.

AUTONOMIC NEUROPATHY IS FATAL

The major cause of fatalities in diabetes is the “silent” heart attack. A diabetic goes to sleep at night and does not wake up in the morning. These heart attacks are due to a fatal complication of diabetes called autonomic neuropathy that affects the autonomic nervous system (ANS). There are no chest pains associated with these fatalities because the ANS also reflects pain, hence the term “silent heart attack”.



MONITORING



TREATMENT

Over the last five years, about 300 doctors in Tamil Nadu and AP have been using the detection and monitoring technique and have been successfully treating autonomic neuropathy.

However the most powerful treatment may be a nutritional supplement therapy based on L-Arginine. The mechanism behind this treatment was awarded the Nobel Prize for Medicine in 1998.



The Nobel Prize in Physiology or Medicine
1998
Robert F. Furchtgott, Louis J. Ignarro,
Ferid Murad

“for their discoveries concerning nitric oxide as a signaling molecule in the cardiovascular system”

According to Dr. Ignarro the heart benefits of Nitric Oxide are

1. Relax and widen blood vessels
2. Increase blood circulation
3. Maintain blood pressure within normal range
4. Reduce cardiovascular aging

A large percentage of people (especially diabetics) are deficient in their production of nitric oxide placing them at increased risk of cardiovascular disease. Compounds like L-Arginine can increase the body's own production and/or actions of nitric oxide.

Dr. J. Joseph Prendergast M.D. (Palo Alto, CA, USA) has been using the ANSiscope with L-Arginine based therapy on over 2,000 patients and reversed autonomic neuropathy in all of them.

Separately we have measured over 100 users of ProArgi9plus. Everybody (even if they were in bad physical shape) had a well functioning Autonomic Nervous System.

There are no patents and no IP on Arginine. An appropriate formulation can be manufactured in India inexpensively.

RECOMMENDATION

1. Implement a pilot program using ANS monitoring equipment in one southern state (Kerala or Tamil Nadu) via Primary Health Ctrs.
2. Manufacture and provide an L-Arginine based supplement to these centers.
3. Monitor the program for 1 year.
4. Based on a successful pilot program, implement a countrywide program starting with diabetes heavy states.