

### Safety of plasma A $\beta$ 1-42 and A $\beta$ 1-40 reduction with H.E.A.L.E.R. (Haemoadsorption for Extracorporeal Amyloid- $\beta$ Level Expedited Reduction) using BETACLEAR BICARB 1000 in healthy elderly individuals

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Alzheimer's disease (AD) is a growing concern worldwide due to rise in the elderly population. Symptomatic agents remain to be the cornerstone in its management, whereas the pathological cortical changes are amyloid  $\beta$ -protein plaques and neurofibrillary tangles. Despite well-defined changes in the brain that deleteriously lead to the myriad of symptoms of AD, the Amyloid hypothesis maintains its stronghold in the causation of AD. This study aims to evaluate the safety of H.E.A.L.E.R. procedure with the Amylex BETACLEAR BICARB 1000 in healthy elderly individuals. This product contains a nanomolecular peptide in a sodium bicarbonate compound used as component of dialysate in conjunction with high-flux membrane dialyzer configuration for a hemodialysis procedure in bypass mode. Its active agent specifically targets  $\beta$ -amyloids and facilitates their extraction from the blood. The result is a reduction in the levels of  $\beta$ -amyloids (A $\beta$ 1-40 and A $\beta$ 1-42) in the patient's body. Patient information booklet and informed consent will be administered to 3 participants, who will undergo complete physical, neurological and cognitive examination, alongside medical history and drug review. Laboratory and ancillary tests will be done, and patients will undergo cardiac clearance prior. Once qualified, they will be admitted at St. Luke's Medical Center (SLMC) at pre-defined conditions. A triple lumen venous catheter will be inserted percutaneously at the internal jugular vein to be used for the extracorporeal procedure. Lumbar tap will be performed twice to determine the  $\beta$ -amyloids level in the CSF. Plasma  $\beta$ -amyloids will be done immediately before and after each procedure. ELISA technique will be used for Plasma and CSF  $\beta$ -amyloids level determination. Safety monitoring of patients will be in place. After about 25 days, the patients will be discharged once they are deemed fit and free of adverse effects. They will be reexamined after a month. Ethics Committee approval has been obtained and maintained.

#### Biography

Miguel A Ramos Jr. is a well-known medical professional and clinical researcher in the field of geriatrics. He is currently the Medical Director of the National Center for Geriatric Health and president of the Philippine Society of Geriatric Medicine. He is also the Director of the Geriatrics Center at St. Luke's Medical Center and is set to be the Head of the new Geriatrics Department in the National Kidney and Transplant Institute. He has extensive experience in the field of age-related diseases and is a founding member of several Alzheimer's organizations such as Dementia Society of the Philippines and Alzheimer's Disease Association of the Philippines.

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Figure 1. Schematic Diagram of the Hemoadsorption System

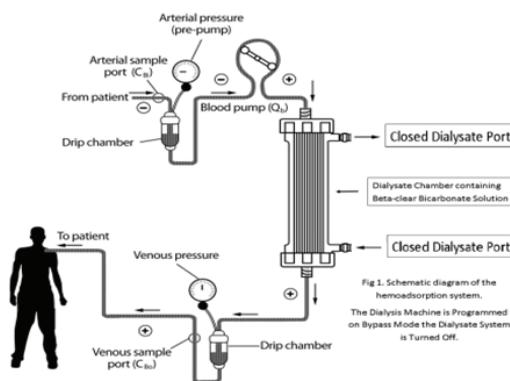


Fig 1. Schematic diagram of the hemoadsorption system. The Dialysis Machine is Programmed on Bypass Mode the Dialysate System is Turned Off.