# VADEMECUM FOR HIV PATIENTS

## ADDENDUM #2

## PREVENTION OF CARDIOVASCULAR DISEASE (CVD)

In the past few years disturbing reports have begun to accumulate about young, relatively healthy HIV people who have developed heart disease or suffered heart attacks. Researchers and health-care providers treating people with HIV/AIDS are taking these reports seriously, and increasing attention has been devoted to the issue.

Heart disease in people with HIV remains poorly understood and continues to generate considerable fear and controversy. But there is good reason to believe that common-sense risk reduction strategies can help delay or prevent cardiovascular problems such as atherosclerosis, heart attacks, and strokes.

The intensity of efforts to prevent CVD depends *on the underlying risk of CVD, which can be estimated*. The preventive efforts are numerous and require involvement of relevant specialists, in particular if the risk of CVD is high and always in people with a history of CVD.

**Assessing CVD risk in next 10 years**

- Framingham Equation has to be used (when available, the HIV population specific Framingham Equation). This assessment and the associated considerations should be performed annually in all HIV patients.

- Life Style interventions recommended to all PLWHA (People Living With HIV/AIDS).

- Consider antiretroviral therapy modification if 10 year CVD risk $\geq$ 20%.

**Identification of key modifiable risk factors and goals**

- Stop smoking.

- Blood pressure:

    o Specific drug treatment if:

        ▪ SBP (Systolic Blood Pressure) $\geq$ 140 or DBP (Diastolic Blood Pressure) $\geq$ 90 mmHg (especially if 10 year CVD risk $\geq$ 20%).

    o Goals: SBP < 140, DBP < 90 mmHg.

    o Goals if 'diabetic' or 'prior CVD' or 'CKD (Chronic Kidney Disease) + proteinuria' (a condition in which urine contains an abnormal amount of protein): SBP < 130, DBP < 80 mmHg.

- Coagulation:

    o Specific drug treatment if:

        ▪ CVD Established.

- Age $\geq$ 50 and 10 year CVD risk $\geq$ 20%.

- Glucose:

    o Specific drug treatment if DM (diabetes mellitus) is confirmed.

    o Goals: HbA1C (a blood test that measures the amount of glycated haemoglobin) < 6.5-7.0%

- Lipids:

    o Specific drug treatment if:

        ▪ CVD Established.

        ▪ Type 2 diabetes Established.

        ▪ 10 year CVD risk $\geq$ 20%.

    o Goals: TC (Total Cholesterol) $\leq$ 155 mg/dl (optimal) or $\leq$ 190 mg/dl (standard), cLDL (cholesterol Low Density Lipoprotein) $\leq$ 80 mg/dl (optimal) or $\leq$ 115 mg/dl (standard).

A majority of people receiving treatment for HIV still are relatively young. The complete picture may only emerge when larger numbers of people who have taken anti-HIV drugs for many years reach their fifties, the age at which cardiovascular problems typically begin to occur. Large, longitudinal cohort studies spanning many years will be needed to uncover definitive answers to the question of whether HIV infection and/or antiretroviral therapy increases the incidence of cardiovascular events in people with HIV/AIDS.