associazione NADIR onlus

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VADEMECUM FOR HIV PATIENTS

ADDENDUM #1

SCREENING FOR NON-INFECTIOUS CO-MORBIDITIES

Non-infectious co-morbidities - cardiovascular, renal, hepatic, metabolic, neoplastic, bone pathologies and depression - are becoming increasingly important for HIV-infected people as a consequence of increased life expectancy resulting from effective cART (combined AntiRetroviral Therapy). Additionally, several studies demonstrated and proposed HIV-associated risk factors may contribute to their development including immune activation, inflammation and coagulation associated with (uncontrolled) replication of HIV, co-infections (e.g. HCV), cART itself and persistent immunodeficiency.

Many HIV physicians are not specialists in non-infectious co-morbidities, and should seek expert advice where appropriate in the prevention and management of such conditions: preventing or managing these diseases in HIV often involves polypharmacy, which increases the risk of suboptimal adherence and hence may compromise the continued benefit of cART. Additionally, the possibility of drug-drug interactions with HIV drugs should be carefully considered prior to introducing any treatment.

This document highlights *laboratory tests of non-infectious co-morbidities* that should be performed in the routine care of HIV-infected people.

	Assessment	**At HIV diagnosis**	**Prior to starting cART**	**Follow up frequency with cART**	**Follow up frequency without cART**	**Comment**
History	Past and current co-morbidities	+	+			On transfer of care repeat assessment
	Family history (e.g. premature CVD, diabetes, hypertension, CKD)	+	+			Premature CVD - Cardiovascular events in a first degree relative: male <55, female <65 years
	Concomitant medications	+	+	every visit	every visit	
	Current lifestyle (alcohol use, smoking, diet, aerobic exercise)	+	+	6-12 m	annual	Adverse lifestyle habits should be addressed more frequently
Body composition	Body-mass index	+	+	annual	annual	
	Clinical lipodystrophy assessment	+	+	annual	annual	
Cardiovascular disease	Risk assessment	+	+	annual	annual	Should be performed in every older patient without CVD (Men > 40 years; Women >50 years)
	ECG	+				
Hypertension	Blood pressure	+	+	annual	annual	

Dyslipidaemia	TC, HDL-c, LDL-c, TG	+	+	annual		
Diabetes mellitus	Serum glucose	+	+	6-12 m		Consider oral glucose tolerance test if repeated fasting glucose levels of 110-125 mg/dl
Liver disease	Risk assessment	+	+	annual	annual	More frequent monitoring prior to starting and on treatment with hepatotoxic drugs
	ALT/AST, etc.	+	+	3-6 m	6-12 m	
Renal disease	Risk assessment	+	+	annual	annual	
	eGFR (aMDRD)	+	+	3-6 m	6-12 m	More frequent monitoring if CKD risk factors present and/or prior to starting and on treatment with nephrotoxic drugs
	Urine Dipstick analysis	+	+	annual	annual	Every 6 months if eGFR <60 ml/min; If proteinuria ≥ 1+ and/or eGFR<60 ml/min perform UP/C or UA/C
Bone disease	Risk assessment (FRAX® in patients >40 years)	+	+	2 yrs	2 yrs	If not using FRAX®, consider DXA of spine and hip in specific patients
	Vitamin D test	+				Repeat according to risk factors
Neurocognitive impairment	Questionnaire	+	+	1-2 yrs	1-2 yrs	Screen risk patients
Depression	Questionnaire	+	+	1-2 yrs	1-2 yrs	Screen risk patients

Abbreviations

ALT = Alanine Aminotransferase
aMDRD = abbreviated Modification of Diet in Renal Disease Formula
AST = Aspartate Aminotransferase
CKD = Chronic Kidney Disease
CVD = Cardiovascular Disease
DXA = Dual energy X-ray Absorptiometry
ECG = Electrocardiography
eGFR = estimated Glomerular Filtration Rate
FRAX® = Fracture Risk Assessment Tool
HDL-c = High Density Lipoprotein cholesterol
LDL-c = Low Density Lipoprotein cholesterol
TC = Total Cholesterol
TG = Triglycerides
UA/C = Urine albumin/creatinine ratio
UP/C = Urine protein/creatinine ratio

Focus on cancer

Problem	Patients	Procedure	Evidence of benefit	Screening interval	Additional comments
Breast cancer	Women 50-70 yrs	Mammography	↓ breast cancer mortality	1-3 years	
Cervical cancer	Sexually active	Pap test	↓ cervical cancer	1-3 years	Target age group should include at least the age range 30 to 59 years.

	women		mortality		Longer screening interval if prior screening tests repeatedly negative
Anal cancer	Homosexual men	Digital rectal exam ± Pap test	Unknown - advocated by some experts	1-3 years	If Pap test abnormal, anoscopy
Colorectal cancer	Persons 50-75 yrs	Fecal Occult Blood test	↓ colorectal cancer mortality	1-3 years	Benefit is marginal
Prostate cancer	Men >50 yrs	Digital rectal exam ± Prostate specific antigen (PSA)	Controversial	1-3 years	Pros: ↑ early diagnosis Cons: Overtreatment, no ↓ cancer-related mortality

Although non-Hodgkin lymphoma has a higher incidence in HIV-infected patients than in the general population, it is currently unknown whether it can be screened.

Careful examination of skin should be performed regularly to detect cancers such as Kaposi's sarcoma, basal cell carcinoma and malignant melanoma.

Finally, other related conditions in the management of HIV disease that are not extensively here discussed, but may be included are:

- Sexual dysfunction. This is frequently encountered and often requires a multidisciplinary approach for its management that may include both expert psychological counselling and medical interventions.
- Hypogonadism.
- Other women's health issues.
- Neuropathy, which may be caused by infections (e.g. HIV), some antiretroviral drugs, other neuropathic drugs, and by metabolic diseases (e.g. diabetes).

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Source: EACS Guidelines, Version 5 – November 2009, modified and adapted by Nadir.

Thanks to Boehringer Ingelheim International GmbH for supporting this publication.