

# EACS Guidelines Summary of Changes from v9.1 to v10.0

#### **ART** section

- What to start with, pages 12-13
  - List of considerations important to review before choosing an ART regimen, page 12
  - New recommendation favoring unboosted INSTI with high genetic barrier (DTG or BIC) as third agent for treatment naïve persons initiating treatment, page 12
  - Additional comment favoring use of generic drugs, page 12
  - 2NRTIs + DOR included in recommended regimens, page 12
  - When indicated, TDF/3TC has been added as a backbone (considered equivalent to TDF/FTC), page 12-13
  - Dual therapy with DTG+3TC has been upgraded to recommended regimens, page 12
  - o Table has been simplified and some additional footnotes have been included, page 12-13
- Primary HIV infection, page 14
  - Added benefits of starting ART in PHI
  - High genetic barrier INSTI or bPI recommended for initial therapy if resistance testing is not available
- Switch Strategies for Virologically Suppressed Persons, page 15
  - Additional indications for switch: avoidance of DDIs, protection from HBV, regiment fortification and cost reduction
  - o Wording regarding switches in persons with prior virologic failures has been changed
  - o Comment on proviral DNA genotypic testing has been added
  - o New classification of dual therapies depending on evidence
  - o DTG+ 3TC has been included in dual therapies supported by large clinical trials
  - o bDRV+RPV has been included as dual therapy option supported by small trials
  - Monotherapy with boosted PI not recommended
- Virological Failure, page 16
  - Threshold of VL for management of VF has been changed to 200 copies/mL
  - o Comment on non-suppressible viremia due to cellular proliferation has been added
  - Possible future new therapy options for VF are mentioned
- Treatment of HIV-positive Pregnant Women or Women Considering Pregnancy, pages 17-19
  - Whole section has been updated with new tables
    - Table 1: Antiretroviral Drugs not Recommended in Women who Wish to Conceive, page 17
    - Table 2: Antiretroviral Drugs Not Recommended in Women who become pregnant while on ART, page 17
    - Table 3: Antiretroviral Regimens for ART Naïve Pregnant Women, pages 17-18
  - Updated recommendations for women who are HIV-positive during labour and additional comment on breastfeeding, page 19
- ART in TB/HIV Co-infection, pages 20-21
  - ART initiation in persons with TB & HIV co-infection and more than 50 CD4 cells/µL may be deferred up to 8 weeks after starting TB treatment, page 20
  - Recommendation of prophylactic prednisone for paradoxical tuberculosis-associated IRIS in persons with CD4 <100 cells/µL receiving antituberculosis treatment has been included, page 20
  - New tables have been included
    - Table 1: Antiretroviral Regimens in TB/HIV Co-infection, page 20
    - Table 2: Drug-Drug interactions relevant to ART co-administered with rifampicin and rifabutin, page 21

- Post-exposure Prophylaxis (PEP), page 22
  - o TAF/FTC, RAL qd and BIC have been included as possible drugs to include in a PEP regimen
  - o Indication to perform HIV serology at the end of PEP and one month later
  - New recommendation to discuss PrEP in persons receiving PEP
- Pre-exposure Prophylaxis (PrEP), page 23
  - o Updated recommendation on HIV testing before and during PrEP
  - o TAF/FTC has been included as alternative in MSM,
  - o Comment on the absence of data of on demand PrEP on women has been included

#### **DDI** section

- Older generation ARVs (ddl and d4T) have been removed from the Guidelines
- All DDI tables have been updated with data on DOR and revised to include recent data on DDIs, pages 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38 and 39
- Data on DOR and the fixed dose combination DOR/3TC/TDF have been added to the tables on swallowing difficulties and dose adjustment for renal and hepatic insufficiency, pages 40, 42, 43
- A novel table "Dosage recommendations for hormone therapy when used at high doses for gender transitioning" provides guidance on dosage adjustments to overcome DDIs with ARVs, page 49
- Two new tables: "Top 10 drug classes to avoid in elderly PLWH" and "Non-HIV drugs requiring dosage adjustment in renal insufficiency" have been developed to prevent inappropriate prescribing in elderly HIV-positive persons, pages 45, 47, 48

## **Co-morbidity section**

- Part I. Assessment of PLWH at initial & subsequent visits, page 6
  - o Addition of menopause screening in women living with HIV ≥ 40 years of age
  - o Human Papilloma Virus Vaccination advised in all PLWH between the ages of 9 and 40
  - Addition of liquid based cytology for cervical cancer screening
  - Addition of statement regarding alternate methods of review for PLWH stable on ART for more than 6 months eg. email / phone / other electronic methods
- Part II. ART of PLWH
  - o Assessing PLWH's Readiness to Start and Maintain ART, pages 9, 10
    - Removed visual analogue scale from the table and legend (not thought to be useful).
    - Clarification that everyone should be on ART regardless of CD4 cell count.
- Part III. Drug-Drug Interactions and Other Prescribing Issues in PLWH
  - Adverse effects of ARVs and Drug Classes, pages 24, 25
    - Addition of weight increase as an adverse effect of INSTI use and TAF use.
    - Removal of stavudine (d4T) and didanosine (ddl) from the table as removed elsewhere from the Guidelines.
  - Dose adjustment of ARVs for impaired hepatic and renal function, pages 42 and 43
    - Addition of data for doravirine and bictegravir.

#### Part IV. Prevention and Management of Co-morbidities in PLWH

- o Cancer Screening Methods, page 52
  - Update on HPV testing methods to include HPV genotyping
- Lifestyle interventions, page 53
  - Updated recommendations on salt intake.
  - Inclusion of a statement on use of e-cigarettes
- Prevention of CVD, pages 54-56
  - Updated targets for lipids based on the ESC/EAC Guidelines for the Management of Dyslipidaemias EHJ September 2019
  - Change in threshold for ART modification from 20% 10-year risk of CVD to 10% 10-year risk of CVD
  - Updated blood pressure targets based on the 2018 ESC/ESH guidelines for the management of arterial hypertension (European Heart Journal 2018;(39):3021-3101)

- Updated information on medical management of hypertension to include amended drug sequencing suggestions and recommendations on drugs to use in particular race / ethnicities.
- o Diabetes management, page 58-59
  - The list of medications used in the management of diabetes mellitus has been updated.
- Bone Disease: Screening and Diagnosis, pages 61, 63
  - Sections on diagnostic tests used to diagnose of osteoporosis and osteomalacia have been updated
  - Inclusion of a statement on frailty and sarcopenia in section on Fracture Risk Reduction
- Kidney Disease: Definition, Diagnosis and Management, pages 64-68
  - Screening for kidney disease recommends the use of urine albumin/creatinine ratio for glomerular disease and protein/creatinine ratio for screening for and diagnosing ARVrelated tubulopathy
  - Modification of dose adjustment table to remove stavudine (d4T) and include information on user of TAF, doravirine (alone and in combination) and use of two-drug regimens (dolutegravir/rilpivirine and dolutegravir/lamivudine)
- Workup and Management of PLWH with Increased ALT/AST (and related sections), pages 69 73
  - Addition of a fourth step in the workup of liver disease in PLWH to include risk stratification based on risk prediction tools and transient elastography
  - Updated algorithm for surveillance of varices
  - Updated screening guidance for hepatocellular carcinoma
  - NASH (particularly with metabolic decompensation) added to the list of indications for transplant
  - Updated definition for NAFLD
  - Removal of stavudine (d4T) and didanosine (ddl) from the NAFLD table
  - Introduction of a new diagnostic and management algorithm for persons with HIV at risk for NAFLD.
- o Travel and Vaccinations, page 79
  - Updated information on meningitis, Varicella Zoster (VZV) and Human Papilloma Virus (HPV) vaccination
  - Addition of information on rabies vaccination for travellers
- Sexual and Reproductive Health, pages 80-83
  - Inclusion of a section on U=U, including how this information affects options for conception for people living with HIV and their partners
  - Inclusion of a statement on the importance of provision of ongoing information on reproductive counselling to women and men with HIV, including information on both conception and contraception
  - Updated statement on screening for menopause
  - Updated treatment guidelines for chlamydia, herpes simplex type II (HSV II) and syphilis
- o Depression, page 84
  - Inclusion of statement referring to the impact of depression on overall wellbeing
- Algorithm for Diagnosis and Management of Cognitive Impairment in PLWH without obvious Confounding Conditions, page 88
  - In the cognitive guidelines, recommendations for modification of ART are based on either CSF resistance testing or on likely ART toxicity
- Chronic lung disease, page 89
  - Updated information on use of medications to treat chronic lung disease
- Frailty in the context of Ageing (new), page 92
  - Description of Frailty phenotype and Frailty Index including: definition, how to assess, how to interpret assessments, how to address frailty and general recommendations for frail PLWH.
- Solid Organ Transplant, page 93
  - Inclusion of a statement referring to the use of organs from HIV+ donors
  - Reference to caution when using pharmacological boosters with immunosuppressant drugs
  - Doravirine included in the DDI table

## Viral hepatitis and co-infections section

- The chapter has been renamed "Clinical Management and Treatment of Viral Hepatitis Coinfections in HIV-positive Persons", page 95
- The structure of the chapter has been reorganised: General recommendations, page 95, Treatment and Monitoring of Persons with HBV/ HIV Co-infection, page 96, and Treatment and monitoring of Persons with HCV/HIV Co-infection, page 97
- HCC screening recommendations have been updated with the Co-morbidity panel, pages 8, 52, 71, and 95
- Practical points on diagnosing hepatic fibrosis have been updated and a table on cut-off values
  of non-invasive tests for the detection of significant fibrosis and cirrhosis have been added,
  pages 95 and 102
- The section on HBV reactivation has been updated, page 96
- Recommendations for persons with failure to DAA treatment have been updated, page 97
- The DAA table has been updated and split into two parts. One with preferred regimens and one with alternatives, pages 98 and 99
- The figure on management of recently acquired HCV infection has been updated, page 101
- The sections on HEV and HDV have been updated, pages 95 and 103

## **Opportunistic infections section**

- The table on when to start ART in the presence of opportunistic infections has been added, page 104
- A table on clinical presentation and management of Immune Reconstitution Inflammatory Syndrome (IRIS) has been added, page 104
- Treatment of the following OIs has been updated: CMV, HSV, VZV, histoplasmosis, cryptococcosis, pages 108-111
- Treatment details of Initial and recurrent genital/mucocutaneous HSV has been removed from the Ols section. A cross reference to the Sexual and Reproductive Health of HIV-positive Women and Men section was made instead, page 110
- Treatment of Talaromycosis has been added, page 110
- Details on management of MDR-TB have been added to the TB section, page 115, as well as a table detailing doses for all TB drugs, major side effects and caution when using with ART, page 117

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