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Consensus document

Executive summary of the consensus document on the shared care of patients with HIV infection between primary and hospital care^{☆,☆☆}



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A B S T R A C T

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The current reality of the diagnosis and treatment of HIV infection justifies a multidisciplinary and coordinated approach between Primary Care and Hospital Care, contemplating bidirectionality and communication between the two care settings. The consensus document, coordinated by the AIDS Study Group of the Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC-GeSIDA) and the Spanish Society of Family and Community Medicine (semFYC), was born out of this need. Here, the recommendations of the four sections that comprise it are summarized: the first deals with aspects of prevention and diagnosis of HIV infection; the second contemplates the clinical care of people living with HIV; the third deals with social factors, including legal and confidentiality issues, quality of life, and the role of NGOs; finally, the fourth block addresses bidirectional and shared training/teaching and research.

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Resumen ejecutivo del documento de consenso sobre el manejo compartido del paciente con infección por VIH entre Atención Primaria y Hospitalaria

R E S U M E N

Palabras clave:

VIH
Atención primaria
Atención hospitalaria
Manejo compartido

La realidad actual del diagnóstico y tratamiento de la infección por VIH justifica un abordaje multidisciplinar y coordinado entre atención primaria y atención hospitalaria, contemplando la bidireccionalidad y la comunicación entre los dos escenarios asistenciales. El presente documento de consenso, coordinado entre el Grupo de Estudio del Sida de la Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica (SEIMC-GeSIDA) y la Sociedad Española de Medicina de Familia y Comunitaria (semFYC), nace de esta necesidad. Aquí se resumen las recomendaciones de los cuatro bloques que lo componen: el primero trata aspectos de prevención y diagnóstico de la infección por el VIH; en el segundo se contempla la

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[◇] A list of the on behalf of Atención Compartida en VIH Study Group (Sociedad Española de Medicina de Familia y Comunitaria – semFYC) and AIDS Study Group (Spanish Society of Infectious Diseases and Clinical Microbiology – GeSIDA SEIMC) members is provided in Appendix A.

atención y el manejo clínico de las personas que viven con VIH; el tercero trata aspectos sociales, incluyendo temas legales y de confidencialidad, la calidad de vida y el papel de las ONG; por último, el cuarto bloque aborda la formación/docencia y la investigación bidireccional y compartida.

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Background

This consensus document, coordinated by the AIDS Study Group of the Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC-GeSIDA) and the Spanish Society of Family and Community Medicine (semFYC), arises from the need to pool knowledge and evidence to improve the multidisciplinary and coordinated approach between Primary Care (PC) and Hospital Care (HC), both in the prevention and screening of HIV infection in the general population, as well as in the comprehensive care of the multiple aspects that comprise the care of people living with HIV (PLWH).

The editors responsible for each chapter reviewed the most relevant data from scientific publications (PubMed, Embase, Fistera platform and *Actualización en Medicina de Familia*, in Spanish and English) and from the most recent congress communications up to May 31, 2021. The document was posted for 15 days on the GeSIDA web pages and sent to the members of both scientific societies for consideration. The recommendations in the document were based on scientific evidence and expert opinion. The Infectious Diseases Society of America grading system (Guide to Development of Practice Guidelines, 2001) was used to grade recommendations.

The recommendations of the four sections, which contemplate bidirectionality and communication between the two care settings, are summarized here. Tables, figures, and references can be found in the original document. Some recommendations may have been updated after the publication of the original consensus document; the clinical guidelines published periodically by GeSIDA should be consulted.

Prevention, diagnosis, and referral

Prevention of HIV infection

The starting point for the prevention of HIV infection is identifying the risk of acquisition to apply the most appropriate prevention measures for each individual (A-II).

How to improve risk identification?

- It is necessary to disseminate screening guidelines that identify persons at increased risk of acquiring HIV infection (A-II).
- The anamnesis should include the number of sexual partners, type of practices, condom use, drug use during sexual intercourse, sharing of material during consumption, history of other sexually transmitted infections (STIs), psychosocial situation, and country of origin. Staff should be given sufficient time to attend to each patient according to their needs (B-III).

What are the non-pharmacological prevention measures for HIV and other STIs?

- Gynecological prevention and family planning (B-III). Prevention of mother-to-child transmission (A-I).
- Male circumcision only in settings with generalized HIV epidemic (C-II).
- Condom use (A-II).

- Regular HIV testing in populations at high risk (A-III).
- Behavior modification interventions (information campaigns, sex education, outreach to vulnerable people, risk reduction, etc.) (B-II).
- Social assessment, including socio-familial environment and livelihoods, to provide support measures if necessary (B-II).
- Syphilis screening annually if there is unprotected sex (B-II), and in gay, bisexual, and other men who have sex with men (GBHSH) with risk factors, monitoring at least *N. gonorrhoeae*, *C. trachomatis* and hepatitis C virus (C-II). Screening should be performed every 3–6 months, depending on risk factors.

What are the pharmacological HIV prevention measures?

- Offer antiretroviral treatment (ART) to all PLWH (A-I), according to current recommendations in clinical guidelines.
- Offer pre-exposure prophylaxis (PrEP) (A-I) and post-exposure prophylaxis (PEP) (A-II) in those situations in which they are indicated, following current recommendations.
- Periodic screening and early treatment of STIs, since ulcerative and rectal STIs increase the risk of acquiring HIV (B-II).

Diagnostic delay. Strategies to optimize screening

What do the clinical guidelines recommend?

- The guidelines propose different screening recommendations, from the routine offer to the general population to the request aimed at people at higher risk.
- In Spain, there is a *Guide of Recommendations for the Early Diagnosis of HIV in the healthcare setting*, which should be updated according to the latest available evidence (A-II).
- The training of healthcare professionals on the implications of diagnostic delay should be reinforced so that they request HIV testing more frequently (A-III).
- Strategies should be implemented to carry out screening in different healthcare settings, providing professionals with the appropriate working conditions to be carried out (A-II).

What are the practical experiences in our setting?

- In Spain, we have different practical experiences in strategies to optimize HIV screening, both in the health and community settings, including mobile units, pharmacies, premises managed by NGOs, and outreach strategies in high-risk environments with offers in leisure or street venues (see specific data in the original document).
- Optimizing screening by implementing strategies in PC and community settings (B-I) is especially recommended.

Referral to hospital units

- Referral for ART is recommended for all patients with HIV infection (A-I) as soon as possible after diagnosis (A-II).
- Agile communication should be facilitated between the primary care specialist and the hospitalists to enable patient access in

any situation that may require it. Non-face-to-face referrals or e-consultations should be optimized to avoid excesses/defects of referrals and to guarantee the rapid exchange of information (A-II).

- Rapid bidirectional inter-consultation circuits should be generated between PC and HC for PLWH presenting STIs, infections not associated with HIV, the need to study a systemic syndrome or for those who cannot go to the hospital and can be attended in PC, as well as those displaced patients who need to carry out specific administrative procedures (A-III).
- PLWH should be referred to PC if they require care in those pathologies usually managed by the family physician, keeping the latter at the center of the care of PLWH (A-II).

Shared care for people living with HIV

Coordination and quality of care

Shared care combines the advantages of PC (proximity and expertise in chronic diseases) with the expertise of the HIV specialist. Although WHO has recommended it since 2004, there are scarce data evaluating these models in high-income countries, with generally good health outcomes (see specific data in the original document).

What are the main recommendations for shared care?

- Using all care settings to support early diagnosis, counseling, and shared follow-up of PLWH is recommended (B-III).
- Generating evidence on shared care in high-income countries is considered a priority (C-III).
- With the increase in age and comorbidities in PLWH, it is necessary to implement effective organizational models in other chronic diseases, which implies improving coordination between HC and PC (A-III).
- A chronic and shared care model between PC and HC for PLWH should be implemented as soon as possible, which would greatly benefit both the patient and the health care system (B-II).

New models of non-face-to-face care and coordination

- There are guidelines from national societies regarding telemedicine in the management of PLWH.
- Models of non-face-to-face care with patients and between HC and PC should be established to achieve greater proximity and accessibility of care (C-III).
- Telemedicine should be seen as a complementary support tool to optimize resources and facilitate patient care (C-III).
- Progress should be made towards safer and more protocolized telemedicine care, and its results on the health of PLWH should be evaluated (C-III).

Vaccinations in the patient with HIV infection

What are the recommendations on the vaccination schedule?

- Vaccinate with the same guidelines as the general population. Live attenuated vaccines with CD4+ cell counts <200 cells/ μ L (A-I) are contraindicated.
- Pneumococcal (A-II), annual influenza (A-II), SARS-CoV-2 (A-II), high-dose HBV (A-I), and postvaccination serological response (B-I), hepatitis A (A-I), human papillomavirus (A-III), and herpes zoster (B-I) vaccines are indicated. The table of recommended vaccines can be consulted in the original document.
- Serology against the hepatitis A and B viruses should be performed on all patients at the beginning of the study to assess their

vaccination status (A-I). In women of childbearing age, rubella serology is recommended for vaccination if IgG is negative (C-III).

- The review of vaccination status and the vaccination record should be carried out both in PC and in HC (C-III).

Current antiretroviral treatment management

What are the recommendations for ART monitoring?

- ART consists of a combination of two or three antiretroviral drugs. Laboratory evaluation and aspects related to the choice and monitoring of ART are specified in the corresponding GeSIDA guidelines.
- It is essential to know the main side effects of antiretroviral drugs and to avoid polypharmacy, interactions, and new side effects (A-I).
- Special situations, such as pregnancy, tuberculosis, or comorbidities, require extreme precautions in monitoring and treatment (A-I).

How to manage interactions and polypharmacy?

- Collaboration between PC and HC professionals is critical to avoiding severe interactions and reducing the risk of polypharmacy (B-III).
- ART and concomitant medication should be accessible to all prescribers in real-time (B-II).
- All PLWH medication should be reviewed every time a clinic visit is made, especially if it is to be modified. Online tools like the one developed by the University of Liverpool (available at: <https://www.hiv-druginteractions.org/>) can be used to assess interactions. Contraindications should be considered, and dose adjustments made when necessary (A-II).

How to monitor adherence and control ART?

- Adherence to ART should be monitored at each clinic visit. This should be done through multidisciplinary collaboration between healthcare professionals (A-II).
- Adherence to ART should be recorded in the clinical history. This information should be shared between PC and HC (C-III).
- The use of two independent methods for measuring adherence is recommended. Pharmacy records and simple validated questionnaires are easily accessible in the clinic (C-III).
- Healthcare for PLWH should include implementing adherence improvement programs, such as sending reminders via mobile devices or patient education programs (B-I).

Management of comorbidities

Cardiovascular risk

- Cardiovascular risk (CVR) should be assessed in the initial evaluation and repeated annually with any of the available tools (Framingham, REGICOR, D:A:D, ACC/AHC, etc.) (A-I).
- Patients should be encouraged to change their lifestyle, including avoiding smoking (the main modifiable CVR factor), adopting a diet more suited to their needs, and providing the necessary physical exercise (A-II).
- In managing dyslipidemia, diabetes mellitus, and arterial hypertension, using the same therapeutic algorithm as in the general population is recommended, considering interactions with ART (A-II).

- HbA1c should be requested before starting ART. Subsequently, in patients with diabetes, it should be monitored every six months to maintain a level <7% (A-I).
- Interactions between the drugs used (mainly statins) and some antiretroviral drugs should be considered (A-II).

Hepatic, respiratory, renal, bone, and CNS comorbidities

- In patients with HIV infection, the different hepatic, renal, bone, pulmonary, or CNS comorbidities should be evaluated at each clinical visit (HC and PC). Preventive screening and modification, if necessary, of lifestyle habits, antiretroviral therapy, and specific treatment of the entity should be performed (A-I). Specific screening for comorbidities can be found in the original document.

HIV-associated infections

- Knowing the vaccination status, the immunological status of the patient, and the use of prophylaxis for opportunistic diseases will help to establish an appropriate differential diagnosis for an infectious condition (A-II). The GeSIDA document on the prevention and treatment of opportunistic infections and other coinfections in PLWH has recently been updated.
- Perform STI screening in sexually active patients at least once a year (or more frequently, depending on individual risk assessment) (A-II).
- Active search for parasitosis in patients from specific countries (migrants, travelers, etc.) (A-II).

Screening for neoplasms

- In the first year after the diagnosis of HIV infection, it is recommended to perform two cervical cytology tests (every six months). If both are normal, they should be repeated annually, including inspection of the anus, vulva, and vagina (B-III).
- Breast and colon cancer screening should be performed according to the recommendations for the general population (B-III).
- In immunosuppressed patients (B-III):
 - Annual cytology starting at age 21 years.
 - From the age of 30:
 - Triennial co-test in women with CD4 >200 cells/ μ l and active ART.
 - Annual co-test with CD4 <200 cells/ μ l or without ART (B-III).
- Currently, anal cytology, followed by high-resolution anoscopy if cytology is abnormal, represents the method of choice for screening for squamous intraepithelial lesions (B-II). Annual anal cytology is recommended for PLWH of the GBHSH group (especially >35 years or advanced immunosuppression) and women with lower genital tract dysplasia (B-III).
- PLWH with liver cirrhosis and those with HBV infection and estimated risk of hepatocellular carcinoma greater than 0.2% per year should be screened by biannual liver ultrasound (A-I).

Neuropsychiatric alterations in HIV infection

- In PLWH, it is advisable to assess their emotional health, paying attention to coping strategies and stigma (A-III). In places where there is no free choice of a mental health specialist, it is recommended to study the case and authorize the requested changes of specialists.
- Validated scales such as the HADS can be used to screen for anxiety and depression at the time of diagnosis and on an annual or biennial basis (A-III).

- If depressive symptomatology is identified, suicide risk should be assessed using the MINI structured interview (B-II).

Particular aspects of the follow-up of women with HIV

Pregnancy

- Pregnancy is a criterion for an immediate referral from PC to HC. To avoid vertical transmission, all women with HIV should receive ART as early as possible, preferably before conception (A-II).
- The ART of choice should be triple therapy. Abacavir-lamivudine or TDF-emtricitabine combinations plus a third drug, which may be raltegravir, dolutegravir, or darunavir/ritonavir, are of choice. The choice will depend on the time of initiation (preconception or not), the history of resistance or intolerance, and the patient's preference (A-II).
- Intrapartum treatment with IV zidovudine is indicated if the plasma viral load is >1000 copies/ml or unknown at delivery time (A-I).
- During delivery, cesarean section is indicated in women with confirmed or suspected viral load of more than 1000 copies/ml (A-II). It is recommended in women with a viral load between 50 and 1000 copies/ml, although each case should be individualized (B-III).
- In our setting, breastfeeding is not recommended (A-II).

Conception, contraception, menopause

- In PLWH, it is necessary to plan gestation in the best possible clinical situation, minimizing the risks for the woman, the couple, and the fetus, exposing the different reproductive options (specified in the original document) (A-II).
- It is recommended to evaluate the age of onset of menopause, considering the symptoms associated with menopause, premature aging, and comorbidities. Hormone replacement therapy can be assessed with the same indications as in the general population (A-III).
- DEXA is advised in postmenopausal women with HIV infection (A-I).

Toxic habits

- It is recommended to ask about tobacco use at least once every two years and advise smoking cessation by providing help through specific intervention (A-I).
- Factors that negatively influence adherence to ART (alcohol and other drug abuse) should be addressed from PC and dealt with available resources (B-II).
- Refer PLWH with alcohol dependence (B-III), severe nicotine use disorder (A-III), or problematic drug use (including chemsex) to specialized Addiction Care. The comprehensive approach to the chemsex user is detailed in the specific guidelines.
- The treatment of choice for cannabis, cocaine, and MDMA abuse is psychotherapy and/or psychoeducation (B-II).
- Agreed protocols for interdisciplinary work and referral between hospital emergency departments, PC, STI centers, HIV units, mental health and addiction resources, and community-based organizations should be designed and implemented (A-III).
- Preferential care centers for chemsex users should be identified in each city. A referral professional should be assigned to the user to follow up on the case and coordinate referrals between services (A-III).

Social aspects

How can the social determinants of vulnerability be approached?

- The gender approach should be incorporated, and all diversities (sexual, gender, class, functional, cognitive, age, and cultural) should be considered, as well as the structural factors at the intersection of health and HIV, taking them into account in medical history taking and health care (A-II).
- Interventions must be adapted to the particularities of vulnerable PLWH (GBHSH, sex workers, transgender people, people with problematic drug use, and migrants), improving the interaction between socio-community services and PC/HC (B-II).

Assessment of health-related quality of life

- Health-related quality of life (HRQoL) in PLWH should be assessed to individualize and improve health care (B-II).
- The EQ-5D-5L instrument is one of the most used for cost-efficiency calculations or comparisons with the general population. If the aim is to determine the degree of affectation of the different dimensions of HRQoL, the WHOQOL-HIV-BREF is a feasible questionnaire with psychometric evidence in PLWH in Spain (B-III).
- It is usually in HC where the most favorable circumstances for assessing HRQoL in PLWH are found, but its results should be shared with PC (B-III).
- Ideally, HRQoL should be recorded at the beginning of ART and annually before the follow-up consultation in HC (B-III).

Legal and ethical aspects. Confidentiality

- HIV testing should be informed and consented to by the patient. Healthcare facilities should ensure that the performance of the test and communication of the results are confidential (A-I).
- Training of healthcare and administrative personnel involved in the care of PLWH on privacy and confidentiality issues should be increased for all age ranges, considering the impact of gender, disability, and culture (A-III).
- The rights to privacy and data protection of PLWH should be guaranteed if there is no risk of transmission (see the original document where particular situations are detailed).

Shared teaching and research in HIV infection

- Periodic teaching sessions should be agreed upon to generate shared knowledge regarding screening, management of HIV infection, comorbidities, and social, ethical, and legal aspects (A-II). Network formats and flexible schedules should be sought (B-III).
- The development of joint meetings between the different healthcare settings should be favored concerning the shared care of PLWH and those at risk of acquiring it (A-III).
- Shared research between PC and HC should be promoted by creating multidisciplinary working groups on various topics (prevention, screening, linkage to care, adherence to treatment, interactions, polypharmacy, management of comorbidities, quality of life, continuity of care) (B-III).

Conflict of interests

The authors declare they have no conflict of interest.

Appendix A. Atención Compartida en VIH Study Group (Sociedad Española de Medicina de Familia y Comunitaria – semFYC) – and AIDS Study Group (Spanish Society of Infectious Diseases and Clinical Microbiology AIDS Study Group – GeSIDA SEIMC–)

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Appendix B. Supplementary data

Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.eimc.2023.05.006](https://doi.org/10.1016/j.eimc.2023.05.006).