FLOWCHART 1: Initial Visit: New Patient, New HIV Diagnosis, NOT Taking ART

Available at: **hivguidelines.org/hiv-primary-care**

CLINICAL GUIDELINES PROGRAM

First visit with a new patient who has a new HIV diagnosis and is NOT taking ART

Note: Treat or refer for emergency care when a patient has red flag symptoms, e.g., fevers, dyspnea, severe headaches, mental status changes.

Confirmed HIV diagnosis:

- Assess HIV treatment readiness and facilitate shared decision-making regarding ART (see NYSDOH AI guideline Rapid ART Initiation > Benefits and Risks of ART)
- Recommend and offer same-day or rapid ART
- **If the patient is not ready to start ART:** Schedule a return visit within 1 week to allow the patient time to process the new diagnosis, then recall as needed to reassess treatment readiness

Unconfirmed HIV diagnosis:

- Explain the diagnosis confirmation process and order confirmatory HIV testing; see the standard HIV testing algorithm
- Assess HIV treatment readiness, recommend and facilitate shared decision-making regarding same-day or rapid ART; discuss harm reduction [a], including transmission prevention
- If the patient is taking PrEP, manage per the recommendations in the NYSDOH AI guideline PrEP to Prevent HIV and Promote Sexual Health

All patients:

Obtain:

- Pronoun(s) and gender identity
- Patient concerns and goals
- Standard medical, surgical, and family histories
- Standard ROS and physical exam, including sex organ inventory
- Current medications; note potential drug-drug interactions
- Immunization status

Provide counseling and patient education:

- ART options and benefits of ART, including rapid start and U=U
- HIV transmission prevention [a]
- HIV disclosure status
- Age-, sex-, and risk-based screening and preventive care recommendations, including immunizations
- Adherence requirements and support resources
- Substance use treatment and harm reduction options
- Sexual health, including condom use, STI prevention, and other harm reduction options (e.g., doxy-PEP)

Assess (also see Checklist 1)**:**

- Comorbidities
- Symptoms of common opportunistic infections (PJP, TB, CMV, CM); initiate OI prophylaxis if the patient's CD4 count is <200 cells/mm^3
- Substance use, including tobacco; if high-risk, engage in shared decision-making regarding SUD treatment
- Harm reduction knowledge and needs
- Functional status
- Urgent psychosocial or behavioral needs
- Trauma experience, including medical trauma

Order:

- Baseline laboratory testing
- Seasonal and other priority vaccines, e.g., influenza, COVID-19, mpox, pneumococcal; avoid live vaccines in patients with CD4 count <200 cells/mm^3
- STI and other indicated age-, sex-, and risk-based screening and preventive care if not available on site

Refer, as indicated, for:

- Imaging
- Urgent specialty care
- Assistance with urgent psychosocial needs
- Screening and preventive care that cannot be provided on site

Follow-up:

After ART is initiated:

- **1 week after, in-person visit:** Review laboratory test results, including confirmatory HIV test result; assess and manage adverse effects and adherence challenges
- **2 weeks after, in-person, telephone, or telemedicine visit:** Assess and manage adverse effects and adherence challenges
- **4 weeks after, in-person visit:** Assess and manage adverse effects and adherence challenges; assess for symptoms of IRIS; identify drug-drug interactions; order HIV viral load testing
  - Continue immunizations until the patient has received all indicated vaccines; avoid live vaccines until CD4 count is >200 cells/mm^3
  - Assess [b]: Comorbidity management, preventive and specialty care needs, psychosocial status and urgent psychosocial needs
  - Provide counseling, as above
- **HIV viral load and comprehensive metabolic panel:**
  - 4 weeks after ART initiation
  - At least every 8 weeks until complete virologic suppression is documented
- **CD4 cell count:**
  - 12 weeks after ART initiation
  - Every 4 months until CD4 count >200 cells/mm^3 is obtained on 2 measurements at least 4 months apart, then at least every 6 months if CD4 count is ≤350 cells/mm^3
  - Optional if CD4 count is >350 cells/mm^3 and viral load is suppressed, i.e., <20 to <50 copies/mL
  - See NYSDOH AI guideline Virologic and Immunologic Monitoring in HIV Care

If rapid ART is not initiated:

- **1 week after the first visit, in-person:** Review laboratory test results, including confirmatory HIV test result
  - Reassess treatment readiness and barriers
  - Engage the patient in motivational interviewing and shared decision-making regarding ART initiation
  - Provide counseling, as above
- **Ongoing:** Schedule return visits to encourage ART initiation, monthly or at intervals that respect the patient's autonomy and at a frequency that the patient agrees to

Abbreviations: ART, antiretroviral therapy; CM, cryptococcal meningitis; CMV, cytomegalovirus; doxy-PEP, doxycycline post-exposure prophylaxis; HBV, hepatitis B virus; HCV, hepatitis C virus; HPV, human papillomavirus; IRIS, immune reconstitution inflammatory syndrome; OI, opportunistic infection; PEP, post-exposure prophylaxis; PJP, *pneumocystis jirovecii* pneumonia; PrEP, pre-exposure prophylaxis; ROS, review of systems; STI, sexually transmitted infection; SUD, substance use disorder; TB, tuberculosis; U=U, undetectable=untransmittable.

Notes:

a. Ongoing discussion and education regarding HIV disclosure, U=U, PrEP and PEP for sex partners, and harm reduction is recommended.

b. Ongoing surveillance for diseases transmitted through the same routes as HIV, including HCV, HBV, HPV, and other STIs, is recommended.

FLOWCHART 2: Initial Visit: New Patient, HIV Confirmed, IS Taking ART

Available at: **hivguidelines.org/hiv-primary-care**

CLINICAL GUIDELINES PROGRAM

First visit with a new patient who has a confirmed HIV diagnosis and IS taking ART

Note: Review HIV and ART history, current immune status, and adherence history.

Stable ART regimen, i.e., no change needed if:

- HIV viral load is suppressed, i.e., <20 to <50 copies/mL
- ART regimen is optimized for the patient's needs (i.e., pill burden, pill size, dosing schedule, cost coverage)
- Patient reports no unmanageable adverse effects or adherence challenges
- Comorbidity-related conditions are managed effectively [a]

Order proviral DNA genotype (archived genotype) if unable to obtain complete or clear ART history, including previous regimen failure or results of prior resistance testing

ART switch is needed due to:

- Unsuppressed virus (HIV viral load >200 copies/mL obtained with a highly sensitive assay)
  - Assess possible causes, including nonadherence, accessibility challenges, intolerable adverse effects or drug-drug interactions, and challenges with pill size
  - If appropriate, provide or recommend adherence support and counseling (repeat viral load testing within 4 weeks of the ART switch to assess whether adherence has improved)
  - Order resistance testing
- Change in liver or kidney function
- Patient requested switch to injectable or other new ART regimen to optimize dosing or pill burden, reduce cost, or improve adherence

If the patient is not ready to start a new ART regimen:

- Engage patient in motivational interviewing
- Address challenges related to comorbidities and psychosocial factors

All patients:

Obtain:

- Pronoun(s) and gender identity
- Patient concerns and goals
- Comprehensive HIV history (see Checklist 1)
- Standard and HIV-specific medical, surgical, and family histories [a]
- Standard and HIV-specific ROS and physical exam, including sex organ inventory
- Current medications; note potential drug-drug interactions
- Immunization status

Provide counseling and patient education:

- Benefits of ART, including U=U
- HIV transmission prevention [c]
- HIV disclosure status
- Age-, sex-, and risk-based screening and preventive care recommendations, including immunizations
- Adherence requirements and support resources
- Substance use treatment and harm reduction options
- Sexual health, including condom use, STI prevention, and other harm reduction options (e.g., doxy-PEP) [d]

Assess (also see Checklist 1)**:**

- Comorbidities [a]
- Symptoms of common opportunistic infections (PJP, TB, CMV, CM); initiate OI prophylaxis if the patient's CD4 count is <200 cells/mm^3
- Substance use, including tobacco [b]; if high-risk, engage in shared decision-making regarding SUD treatment
- Harm reduction needs
- Functional status
- Urgent psychosocial or behavioral needs
- Trauma experience, including medical trauma

Order:

- Baseline laboratory testing (note: HBV status will inform ART regimen)
- Seasonal and other priority vaccines, e.g., influenza, COVID-19, mpox, pneumococcal; avoid live vaccines in patients with CD4 count <200 cells/mm^3
- STI and indicated age-, sex-, and risk-based screening and preventive care if not available on site

Refer, as indicated, for:

- Imaging
- Urgent specialty care
- Assistance with urgent psychosocial needs
- Screening and preventive care that cannot be provided on site

Follow-up:

Follow-up for a patient with no change in ART:

- **12 to 16 weeks after initial visit, in-person visit:** Routine monitoring visit
- **Every 4 to 6 months, in-person or telemedicine visit:** Routine visits, initiated once the patient's HIV and health status are stable
  - See Flowchart 4: Annual, Routine, New Illness, or Post-Hospitalization Visit: Established Patient Who IS Taking ART

Follow-up for a patient whose ART regimen is changing:

- **1 to 2 weeks after the initial visit, in-person, telephone, or telemedicine visit:**
  - If the ART switch was not already made during the initial visit, review laboratory test results and switch options
  - Engage the patient in shared decision-making to choose and implement a new ART regimen
  - Confirm that the patient is able to fill the prescription, understands adherence requirements, and is informed about adverse effect management
- **4 weeks after ART switch, in-person or telemedicine visit:**
  - Assess and manage adverse effects and adherence challenges; assess for symptoms of IRIS; identify drug-drug interactions
  - Order viral load testing; repeat at least every 8 weeks until complete virologic suppression is documented (see NYSDOH AI guideline Virologic and Immunologic Monitoring in HIV Care)
  - Continue immunizations until the patient has received all indicated vaccines (avoid live vaccines until CD4 count is >200 cells/mm^3)
  - Assess [d]: Comorbidity management, preventive and specialty care needs, psychosocial status, and urgent psychosocial needs
  - Provide counseling, as above

Abbreviations: ART, antiretroviral therapy; CM, cryptococcal meningitis; CMV, cytomegalovirus; doxy-PEP, doxycycline post-exposure prophylaxis; HBV, hepatitis B virus; HCV, hepatitis C virus; HPV, human papillomavirus; IRIS, immune reconstitution inflammatory syndrome; OI, opportunistic infection; PEP, post-exposure prophylaxis; PJP, *pneumocystis jirovecii* pneumonia; PrEP, pre-exposure prophylaxis; ROS, review of systems; STI, sexually transmitted infection; SUD, substance use disorder; TB, tuberculosis; U=U, undetectable=untransmittable.

Notes:

a. Monitor for potential long-term effects of HIV and ART (e.g., bone density changes, dyslipidemia, weight gain, and renal dysfunction) and for comorbidities that occur more often and at younger ages in people with HIV, including atherosclerotic heart disease, non-HIV-related malignancies, renal disease, liver disease, chronic obstructive pulmonary disease, neurocognitive dysfunction, depression, and frailty.

b. Recent studies have found that smoking and hypertension contribute significantly to morbidity, regardless of HIV-related risk factors such as CD4 cell count or viral load.

c. Ongoing discussion and patient education regarding HIV disclosure, principles of U=U, PrEP and PEP for sex partners, and harm reduction is recommended.

d. Ongoing surveillance for diseases transmitted through the same routes as HIV, including HCV, HBV, HPV, and other STIs, is recommended.

FLOWCHART 3: Initial Visit: New Patient, HIV Confirmed, NOT Taking ART

Available at: **hivguidelines.org/hiv-primary-care**

CLINICAL GUIDELINES PROGRAM

First visit with a new patient who has a confirmed HIV diagnosis and is NOT taking ART

Note: Treat or refer for emergency care when a patient has red flag symptoms, e.g., fevers, dyspnea, severe headaches, mental status changes.

ART-experienced:

- Assess patient's reasons for discontinuing ART, including any challenges with adherence, accessibility, adverse effects, and drug-drug interactions
- Consultation with an experienced HIV care provider may be helpful if the patient stopped ART due to viremia or adverse effects, including unmanageable drug-drug interactions
- Assess HIV treatment readiness; facilitate shared decision-making regarding ART (see NYSDOH AI guideline Rapid ART Initiation > Benefits and Risks of ART)

If the patient is ready and able to re-start ART:

- Resume the most recent well-tolerated regimen; if the previous ART regimen is not known, initiate an INSTI-based regimen
- If the patient has had previous virologic failure, consider resistance testing, including on proviral DNA (or archive genotype) at 2 to 4 weeks
- If the previous ART regimen failed or was not well-tolerated, including due to drug-drug interactions, construct a new regimen and order resistance testing; note that archived genotype may have a role in identifying RAMs when standard genotype testing may not yield results, i.e., in patients with prior treatment experience who have stopped taking ARVs for >4 weeks or have a viral load <1,000 copies/mL (see NYSDOH AI guideline Second-Line ART After Treatment Failure or for Regimen Simplification > Table 1: Types of HIV Resistance Tests)

If the patient is not ready to re-start ART:

- Engage the patient in motivational interviewing and address challenges related to comorbidities and psychosocial factors
- Schedule a return visit within 1 to 2 weeks to review test results and encourage ART initiation

ART-naive:

- Assess HIV treatment readiness and facilitate shared decision-making regarding ART initiation (see Benefits and Risks of ART)
- Strongly recommend and offer same-day or rapid ART

If the patient is not ready to initiate ART:

- Engage patient in motivational interviewing
- Address challenges related to co-morbidities and psychosocial factors
- Provide education and counseling regarding HIV transmission prevention, condom use, and STI prevention, including doxy-PEP
- Schedule a return visit within 1 to 2 weeks to review test results and encourage ART initiation

All patients:

Obtain:

- Pronoun(s) and gender identity
- Patient concerns and goals
- Comprehensive HIV history (see Checklist 1)
- Standard and HIV-specific medical, surgical, and family histories [a]
- Standard and HIV-specific ROS and physical exam, including sex organ inventory
- Current medications; note potential drug-drug interactions
- Immunization status

Provide counseling and patient education:

- Benefits of ART, including rapid start and U=U
- HIV transmission prevention [c]
- HIV disclosure status
- Age-, sex-, and risk-based screening and preventive care recommendations, including immunizations
- Adherence requirements and support resources
- Substance use treatment and harm reduction options
- Sexual health, including condom use, STI prevention, and other harm reduction options (e.g., doxy-PEP) [d]

Assess (also see Checklist 1)**:**

- Comorbidities [a]
- Symptoms of common opportunistic infections (PJP, TB, CMV, CM); initiate OI prophylaxis if the patient's CD4 count is <200 cells/mm^3
- Substance use, including tobacco [b]; if high-risk, engage in shared decision-making regarding SUD treatment
- Harm reduction needs
- Functional status
- Urgent psychosocial or behavioral needs
- Trauma experience, including medical trauma

Order:

- Baseline laboratory testing (note: HBV status will inform ART regimen)
- Seasonal and other priority vaccines, e.g., influenza, COVID-19, mpox, pneumococcal; avoid live vaccines in patients with CD4 count <200 cells/mm^3
- STI and other indicated age-, sex-, and risk-based screening and preventive care if not available on site

Refer, as indicated, for:

- Imaging
- Urgent specialty care
- Assistance with urgent psychosocial needs
- Screening and preventive care that cannot be provided on site

Follow-up:

Follow-up for patient starting ART:

- **2 weeks after ART initiation, in-person, telephone, or telemedicine visit:** Confirm that the patient has filled the prescription and initiated ART; review laboratory test results; confirm patient's understanding of adherence requirements and adverse effect management; initiate OI prophylaxis if the patient has a CD4 count <200 cells/mm^3
- **4 weeks after ART initiation, in-person visit:** Assess and manage adverse effects and adherence challenges; assess for symptoms of IRIS; identify drug-drug interactions
  - Order viral load testing and CMP; if the patient is restarting ART, consider genotype testing if there are significant concerns about baseline resistance
  - Continue immunizations until the patient has received all indicated vaccines; avoid live vaccines until CD4 count is >200 cells/mm^3
  - Assess [d]: Comorbidity management, preventive and specialty care needs, psychosocial status, and urgent psychosocial needs
  - Provide counseling, as above

Follow-up if patient is not ready to start or re-start ART:

- **Schedule monthly, in-person visits to:**
  - Review laboratory test results; reassess treatment readiness, barriers, and options
  - Assess and address any challenges related to comorbidities and behavioral or psychosocial factors
  - Perform or order STI and other indicated age-, sex-, and risk-based screening and preventive care
  - Provide education and counseling regarding HIV transmission prevention, condom use, and STI prevention, including doxy-PEP
  - Address treatment readiness and engage the patient in motivational interviewing
- **Adjust the visit schedule:** Schedule visits at a frequency that respects the patient's autonomy and tolerance

Abbreviations: ART, antiretroviral therapy; ARV, antiretroviral; CM, cryptococcal meningitis; CMP, comprehensive metabolic panel; CMV, cytomegalovirus; doxy-PEP, doxycycline post-exposure prophylaxis; HBV, hepatitis B virus; HCV, hepatitis C virus; HPV, human papillomavirus; INSTI, integrase strand transfer inhibitor; IRIS, immune reconstitution inflammatory syndrome; OI, opportunistic infection; PEP, post-exposure prophylaxis; PJP, *pneumocystis jirovecii* pneumonia; PrEP, pre-exposure prophylaxis; RAM, resistance-associated mutation; ROS, review of systems; STI, sexually transmitted infection; SUD, substance use disorder; TB, tuberculosis; U=U, undetectable=untransmittable.

Notes: a. Monitor for potential long-term effects of HIV and ART (e.g., bone density changes, dyslipidemia, weight gain, and renal dysfunction) and comorbidities. **b.** Smoking and hypertension contribute significantly to morbidity, regardless of HIV-related risk factors such as CD4 cell count or viral load. **c.** Ongoing discussion and patient education regarding HIV disclosure, principles of U=U, PrEP and PEP for sex partners, and harm reduction is recommended. **d.** Ongoing surveillance for diseases transmitted through the same routes as HIV, including HCV, HBV, HPV, and other STIs, is recommended.

FLOWCHART 4: Annual, Routine, New Illness, or Post-Hospitalization Visit: Established Patient Who IS Taking ART

Available at: **hivguidelines.org/hiv-primary-care**

CLINICAL GUIDELINES PROGRAM

Routine visit (annual), new illness work-up, or post-hospitalization visit with an established patient taking ART

Note: Review HIV and ART history, current immune status, and adherence history; if ART switch is needed, see Flowchart 2.

All patients:

Obtain:
- Update medical, surgical, social, and family histories as indicated
- Standard and HIV-specific ROS and physical exam
- Current medications; note potential drug-drug interactions

Assess (also see Checklist 1); see Flowchart 2 if ART switch is needed)**:**
- Patient concerns
- Comorbidities [a]; changes in symptoms or treatment since the last visit
- Substance use, including tobacco [b]; if high-risk, engage in shared decision-making regarding SUD treatment
- Harm reduction needs
- Functional status
- Current behavioral and psychosocial status

Order:
- Annual (routine) laboratory testing
- Seasonal and other priority vaccines, e.g., influenza, COVID-19, mpox, pneumococcal; avoid live vaccines in patients with CD4 count <200 cells/mm^3
- STI and other indicated age-, sex-, and risk-based screening and preventive care if not available on site

Provide counseling and patient education:
- Age-, sex-, and risk-based screening and preventive care recommendations, including immunizations
- Adherence support
- As indicated, ongoing discussion of HIV disclosure status and U=U
- Substance use treatment and harm reduction options
- Sexual health, including condom use, STI prevention, and other harm reduction options (e.g., doxy-PEP) [c]
- Advance directives

Refer, as indicated, for:
- Imaging
- Preventive care, including cancer screenings
- Specialty care, e.g., case management, optometry, nutrition, dental care, peer support

Schedule return visit:
- In-person, in 12 to 24 weeks for a routine monitoring visit
- Other as indicated

If the patient is ill:
- Evaluate current immune status, keeping in mind the possibility of opportunistic infections in patients with compromised immunity
- Assess for comorbid conditions
- Order additional laboratory testing as indicated
- Treat according to the suspected diagnosis
- Schedule appropriate follow-up

If the patient was recently hospitalized:
- Review laboratory test results and imaging from hospitalization to identify the need for follow-up and assess liver and kidney function
- Review any new diagnoses and treatment plans
- Perform medication reconciliation and assess for potential drug-drug interactions
- Coordinate care with new specialists, including rehabilitation facilities, nursing homes, and hospice; note any changes in the patient's social/familial support network and assess related needs
- If indicated, assess the effects of newly disclosed HIV status
- Review or perform functional status and safety assessment; make referrals as indicated
- Address patient's financial concerns if indicated, e.g., new medications, hospital or specialist care co-pays
- Assess long-term care planning and resources
- Assist with end-of-life planning if indicated

Abbreviations: ART, antiretroviral therapy; doxy-PEP, doxycycline post-exposure prophylaxis; HBV, hepatitis B virus; HCV, hepatitis C virus; HPV, human papillomavirus; ROS, review of systems; STI, sexually transmitted infection; SUD, substance use disorder; U=U, undetectable = untransmittable.

Notes:
a. Monitor for potential long-term effects of HIV and ART (e.g., bone density changes, dyslipidemia, weight gain, and renal dysfunction) and for comorbidities that occur more often and at younger ages in people with HIV, including atherosclerotic heart disease, non-HIV-related malignancies, renal disease, liver disease, chronic obstructive pulmonary disease, neurocognitive dysfunction, depression, and frailty.
b. Smoking and hypertension contribute significantly to morbidity, regardless of HIV-related risk factors such as CD4 cell count or viral load.
c. Ongoing surveillance for diseases transmitted through the same routes as HIV, including HCV, HBV, HPV, and other STIs, is recommended.