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HIV Shared Care and GP Management Plan

(GPMP) Guide 2021

www.ashm.org.au

1.
List Of Abbreviations

ASHM	Australasian Society for HIV Medicine
ART	Antiretroviral therapy
BMI	Body mass index
BMD	Bone mineral density
BSL	Blood sugar level
CDM	Chronic disease management
CME	Continuing medical education
CV	Cardiovascular
DEXA	Dual-energy x-ray absorptiometry
DARE	Digital ano-rectal examination
eGFR	Estimated glomerular filtration rate
EUC	Electrolytes urea creatinine
FBC	Full blood count
FHx	Family history
FOBT	Faecal occult blood test
GP	General Practitioner (medical specialist in General Practice)
GPMP	General Practitioner management plan
HIV	Human immunodeficiency virus
HPV	Human papillomavirus
LFT	Liver function test
MSM	Men who have sex with men
PLHIV	People living with HIV
RACGP	Royal Australian College of General Practitioners
STI	Sexually transmitted infection
TCA	Team care arrangement

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3. Introduction

Health outcomes for people living with HIV (PLHIV) have improved greatly over the last 25 years largely due to the success of antiretroviral therapy (ART). HIV is now regarded as a chronic disease. However optimal health requires attention to all aspects of patient care.

Approximately half of specialised HIV care in Australia is provided in general practice. However, it is common for many patients to consult a variety of medical practitioners for their HIV care, including general practitioners (GPs), sexual health physicians and other medical specialists.[1]

Available data suggest that the HIV care provided by a GP is consistent with care provided by a specialist HIV physician with both resulting in optimal patient outcomes.[2] Despite this, there is still considerable uncertainty around 'shared care' – a model of care in which a patient sees both a GP and another specialist. The purpose of this guide is to provide background on the shared care model and guidance on recommended monitoring and preventative health for people living with HIV (PLHIV).

ASHM acknowledges the care, treatment and management that Nurse Practitioners provide to people living with HIV. Although this *HIV Shared Care and GP Management Plan* is written for GPs, Nurse Practitioners managing people with HIV and prescribing HIV s100 medicines may also find it useful.

A selection of HIV Shared Care resources is included as appendices to this guide. These resources may also be downloaded from the ASHM website: www.ashm.org.au/hiv/managementhiv/hiv-shared-care-for-gps

4. Background

The 6th National HIV Strategy discussed the changing nature and markedly improved prognosis of HIV infection.

It emphasised that HIV is a chronic disease that is best managed using a team-based interdisciplinary approach involving general practitioners (GPs), other specialists, nurses and other primary care providers.[4] It recommended that models of care should be reviewed and analysed to ensure access to testing, shared care and the complex needs of the ageing population of PLHIV. The strategy further stated that models need to be patient-centred, coordinated and integrated, to promote self-management, to cover the continuum of care and effective management of the acute—chronic continuum and discusses the use of electronic records and other clinical management tools. The strategy emphasised the need "...to build workforce capacity in ambulatory care, shared care and primary healthcare for the ageing population of people living with HIV".

With the 7th National HIV Strategy came a renewed call to "...increase the use and effectiveness of shared care models between general practitioners and HIV specialists"[5] and this is echoed throughout the current 8th National strategy which highlights the importance of "equitable access to and coordination of care...to ensure healthcare and support services are accessible, coordinated and skilled to meet the range of needs of people with HIV, particularly as they age".[6]

All GPs should be able to perform HIV testing with appropriate pre-test discussion. However, there is evidence that many GPs have poor knowledge regarding HIV testing, treatment, and referral to specialised support services. ASHM provides support to low case-load GPs via a mentoring program available to GPs at the time of diagnosis which involves a phone call from a doctor experienced in delivering a new HIV diagnosis as well as the option to download patient support material. This mentoring program has been well regarded by the GPs involved.

'HIV shared care is the joint participation of GPs and specialists in the planned delivery of care informed by an adequate education program and information exchange over and above routine referral letters.'

(Hickman, et al[3])

KEY AREAS FOR ACTION (8th National Strategy)

+ **Improve the integration of care provided to people with HIV, including by general practitioners, sexual health physicians, psychosocial support services, community pharmacies, community-based nursing, other health services and specialists, and aged care services, particularly in rural and remote locations**
+ **Identify, implement, and evaluate models of care that meet the needs of people with HIV who are ageing and ensure quality of care across services**

Figure 1: Models of HIV care by GPs

The **specialist GP model** (also referred to as **s100 GPs** after Section 100 of the Pharmaceutical Benefit Scheme) has been developed in Australia over recent decades with GPs attending comprehensive training programs in HIV care with continuing medical education (CME) points allocated by both ASHM and the RACGP.

ACTIVITIES	ADDITIONAL TRAINING
Prescribing HIV s100 medications	s100 training course, annual CME
Monitoring and support	Short course
Diagnosis, basic evaluation	Nil

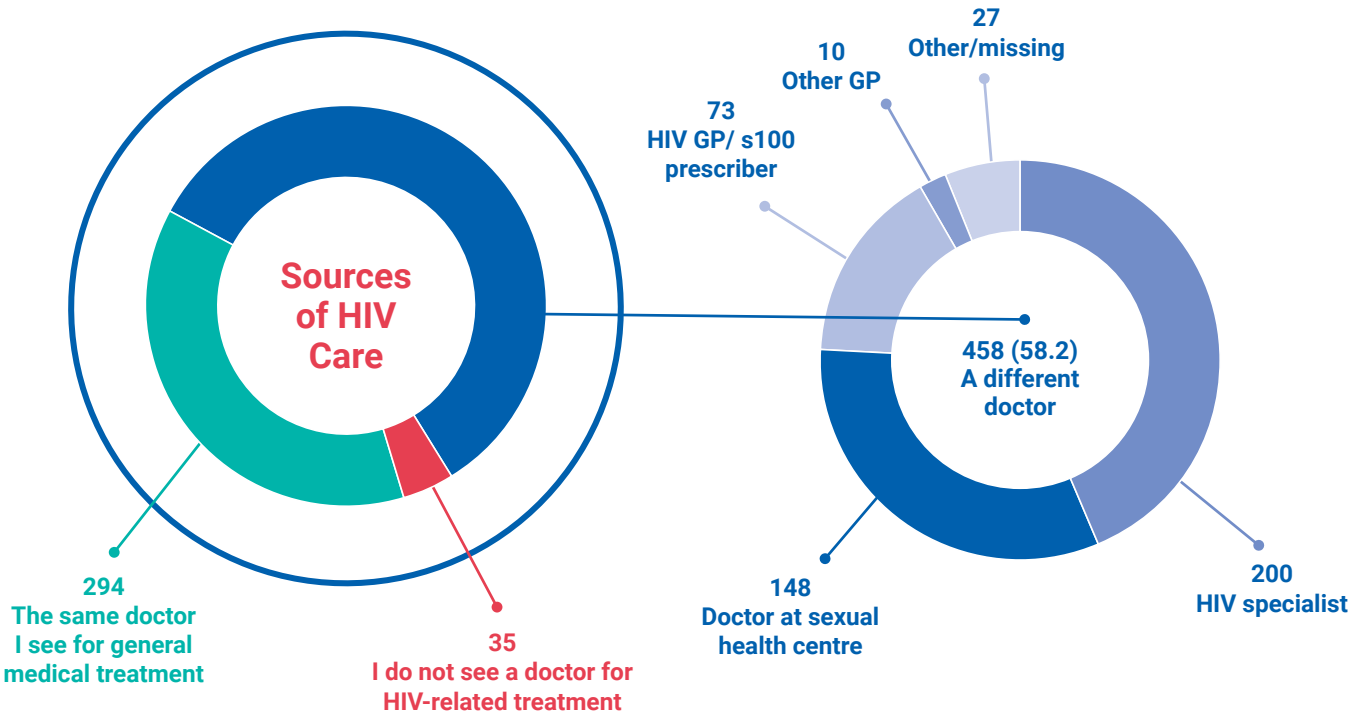
S100 GP

SHARED CARE GP

GENERAL PRACTITIONER

Figure 2: Sources of HIV Care (Futures 9)[1]

The HIV Futures 9[1] survey was completed by 847 PLHIV and found that GPs provided almost 50% of HIV-specific care for this group (see figure 2).



4.1 Shared care models

GP shared care models have been defined as the joint participation of primary care physicians and specialty care physicians in the planned delivery of care informed by an adequate education program and information exchange **over and above routine referral notices**.[3] Shared care systems may be further classified as:

1. **Community clinics: specialists attend clinics in a primary-care setting.**
2. **Basic model: a regular communication system is set up between specialist and primary care.**
3. **Liaison: a liaison meeting occurs between specialists and primary-care staff.**
4. **Shared care record card: information sharing where an agreed data set is entered onto a record card carried by the patient.**
5. **Computer-assisted shared care and email: an agreed data set is collected in both the specialty and primary-care setting and is exchanged online.**

According to findings from a series of workshops run by ASHM in 2012 exploring the needs of GPs in providing shared care, the key needs for HIV shared care within general practice include:

+ **A clear definition of shared care**
+ **Clear guidelines around the role of the GP within the model**
+ **Support with information exchange**
+ **Support with the use of new technologies that can facilitate shared care**

5.
Guidelines for HIV Care

There are several guidelines that are relevant to providing care for PLHIV in the Australian context:

+ **HIV specific guidelines** are detailed in Australian Commentary on the US Department of Health and Human Services (DHHS) Guidelines for the use of Antiretroviral Agents in HIV 1-Infected Adults and Adolescents[8] https://arv.ashm.org.au/ and the EACS Guidelines Oct 2020 Version 10.1[9] https://www.eacsociety.org/files/guidelines-10.1_5.pdf
+ **General health care** is based on the RACGP's Guidelines for preventive activities in general practice (Red Book) 9th Edition[10] https://www.racgp.org.au/download/Documents/Guidelines/Redbook9/17048-Red-Book-9th-Edition.pdf
+ **Immunisation handbook**[11] https://immunisationhandbook.health.gov.au/
+ **Sexual health screening** for men who have sex with men (MSM) is detailed in the STIGMA guidelines[12] https://stipu.nsw.gov.au/wp-content/uploads/STIGMA_Guidelines2019_Final-1.pdf
+ These are summarised in the **HIV Monitoring Tool** https://ashm.org.au/resources/hiv-resources-list/hiv-monitoring-tool/
+ An **Annual Cycle of Care** for Patients with HIV Infection on Stable Maintenance Therapy is provided in **Appendix 9.2.**
+ At the core of these activities is the **GP Management Plan for HIV**. This is a chronic disease management tool designed to enhance and formalise communication between health professionals.

6.
Communicating with HIV Specialist and other team members

Communicating with other health care practitioners remains a challenge in all areas of medicine. PLHIV may see several different doctors, nurses, allied health care providers and specialised support services.

Chronic Disease Management (CDM, formerly Enhanced Primary Care or EPC) provides a structure to enhance patient care planning and to improve communications between health practitioners. These include the GP Management Plan (GPMP) which is designed to improve care for people with chronic health problems and the team care arrangement (TCA). TCAs apply to all PLHIV provided they need health services from three or more practitioners. CDM items are included in the Medicare schedule and attract a payment (see next section).

Communications with other team members can be by phone, fax, and secure email or by case conference. The situation of each GP and patient is unique so communication methods will vary. The GPMP and TCA provide a potential structure and checklist to support comprehensive health care. Refer to **Appendix 9.1 and 9.2** GPMP for HIV.

A possible flow-chart for using GPMP as part of the shared care process is shown in **Appendix 9.3.**

A sample letter to other team members is included in **Appendix 9.4**.

In general practice, a key issue in improving communication is to use the 'copy to' feature in pathology ordering. This means that other team members will receive copies of pathology results.

With good communication, HIV infection can be managed using a team-based interdisciplinary 'shared care' approach involving GPs, specialists, nurses, allied health and specialist support services.

7. Chronic Disease Management

Medicare provides support via specific item numbers to encourage appropriate chronic disease management.[15] All patients with HIV are entitled to these services. The use of an electronic GPMP/TCA has been shown to result in significant improvements in clinical outcomes in the management of diabetes.[16]

To claim a GPMP (item721) the GP needs to prepare a comprehensive written plan describing:

1. the patient's health care needs, health problems and relevant conditions
2. management goals with which the patient agrees
3. actions to be taken by the patient
4. treatment and services the patient is likely to need
5. arrangements for providing this treatment and these services
6. arrangements to review the plan by a date specified in the plan

7.1 Structure of the plan

The GPMP and TCA are structured health care plans. The plan used is based on a template provided by the Department of Health.

The GPMP is structured along the following lines with the components of the plan based on relevant guidelines.

7.2 HIV components

HIV monitoring will generally be performed by the treating doctor. CD4 cells and HIV viral load will be checked every 3 – 6 months. It is helpful to have copies of these results forwarded to you. Other elements to review include drug interactions, adherence to therapy and side effects.

Patient education and support should be provided at every visit.

Adherence should be assessed at every monitoring visit. Older HIV medications were very demanding in their dosing requirements, requiring greater than 95% adherence to maintain HIV control. Newer medications have longer half-lives and are more 'forgiving,' however, high levels of adherence are still needed. Enquiries about adherence could be framed as permissive questions such as: "Many people have trouble taking their medications every day. Have you had any difficulties recently?" The use of simple adherence aids such as pill boxes may be helpful. Patient education re disease prognosis, potential transmission, treatment options.

Patient's health needs	Management goals	Treatment and services	Arrangements for treatments/services
Education about HIV	**Good understanding of HIV Including U=U and TaSP**	Patient education re disease prognosis potential transmission treatment options	GP / Nurse / Treatment educator
CD4 HIV viral load	**Monitor immune function**	Check every 3-6 months	GP / Specialist
Interactions	**Prevent problems from drug interactions**	Check all current medicines at every visit	GP / Specialist
Continuing ART treatment	**Need to take ART medication regularly once started**	Assess adherence at every visit, support as needed	GP / Nurse / Treatment educator
Side effects of treatment	**Reduce side effects**	Review side effects at every visit	GP / Specialist

Side effects should also be reviewed. Many patients may be experiencing significant side effects but may not report these unless asked specifically. The presence of side effects is associated with reduced adherence and poorer quality of life.[11]Again general questions should be asked followed by more specific questions targeted at common side effects associated with particular regimens (e.g. presence of diarrhoea or sleep disturbance and mood changes).

Patients require close monitoring in the first few months of treatment. Side effects are most likely to occur at this time and medication may need to be modified. Once treatment is commenced, HIV viral load will generally become 'undetectable' after 3 months. This means that the HIV RNA level is less than the limit of detectability of the assay performed by the pathology laboratory (now less than 20 – 40 copies per mL). Suppression of viral replication will be associated with reduced CD4 cell loss and recovery of the CD4 count. CD4 count recovery is a much slower process lasting several years. Once patients are stable the frequency of HIV monitoring can be reduced to every 3-6 months.

If the HIV viral load does not become undetectable or increases after starting treatment this may represent the emergence of resistant HIV and virological treatment failure. Most commonly, this results from adherence difficulties. Intermittent low levels of detectable virus (up to 200 copies per mL) may occur without resistance.

Drug interactions should be considered at each regular visit. All prescribed and over the counter medications should be recorded. Interactions can be complex as commonly used ART can induce or inhibit hepatic drug metabolism. Detailed support can be obtained from online reference tools such the University of Liverpool: www.hiv-druginteractions.org

Examples of dangerous drug interactions:

- Inhaled budesonide levels increased with ritonavir causing Cushing syndrome
- Simvastatin levels elevated with protease inhibitors causing myositis
- Proton pump inhibitors lower atazanavir levels causing treatment failure

7.3 Coinfections and vaccinations

Historically most patients with HIV experienced life-threatening infectious diseases such as Pneumocystis jirovecii pneumonia (PJP). People with a CD4 count of < 200 cells/μL or < 14% of lymphocyte count remain vulnerable to serious infections. This group needs to be treated with appropriate antibiotic prophylaxis, most commonly trimethoprim-sulphamethoxazole (Bactrim DS or Septrin). If the CD4 count falls below 50 cells/μL prophylaxis against Mycobacterium Avium

Complex (MAC) should also be commenced, after exclusion of active MAC or Mycobacterium Tuberculosis (TB). Azithromycin 1.2g orally weekly is most used. Most patients in regular care will have a CD4 count over 200 so will not require antibiotic prophylaxis.

Vaccination is less effective for those with severe immune suppression (CD4 < 200). All patients should be screened for hepatitis A, B and C. Susceptible patients should receive vaccination for hepatitis A and B. Hepatitis B surface antibody levels (anti-HBs) should be checked, and patients revaccinated to maintain an anti-HBs level > 10. Sexual transmission of hepatitis C can occur under certain circumstances between HIV +ve men who have sex with men (MSM), who should have annual Hepatitis C screening. Other high-risk groups, including people who inject drugs, should have annual hepatitis C testing. All patients diagnosed with hepatitis C infection can be cured with direct acting antivirals (DAAs). Hepatitis C DAAs may interact with ART which may influence regimen choice. Chronic hepatitis B can be treated with ART so coinfection with hepatitis B also influences choice of ART treatment.

Respiratory infections are more common in this patient group. All patients should have annual influenza vaccinations and pneumococcal vaccination as per current guidelines.[12]

Many PLHIV travel and will need to consider travel related vaccinations. In general vaccination is safe with all inactivated vaccines and some live attenuated vaccines (MMR, varicella). Vaccination with BCG, oral polio and oral typhoid is contraindicated. Yellow fever vaccination can be given if there is significant risk provided CD4 > 200 cells/μL.

Vaccination for human papillomavirus is safe and immunogenic in PLHIV but is currently not funded for adults under the National Immunisation Program. However, some patients may choose to pay for this vaccination themselves.

Sexually transmitted infections (STIs) should be screened for as recommended in current guidelines. All MSM are advised to have at least an annual STI check including gonorrhoea, chlamydia, and syphilis.[15] Other groups should be screened opportunistically.

Patient's health needs	Management goals	Treatment and services	Arrangements for treatments/services
Hepatitis A	**Prevent**	Vaccination x 2 if at risk	GP / Nurse
Hepatitis B	**Detect and prevent**	Vaccination x 3 if at risk*	GP / Nurse
Hepatitis C	**Detect and treat**	Check HCV Ab at baseline, annual check if at risk#	GP / Nurse
Influenza	**Prevent**	Annual vaccination	GP / Nurse
Pneumococcal	**Prevent**	Vaccination x 3	GP / Nurse
Tetanus/pertussis	**Prevent**	Vaccination every 10 years	GP / Nurse
HPV	**Prevent**	Vaccination x 3	GP / Nurse
Meningococcal B	**Prevent**	Vaccination X 2	GP / Nurse
Meningococcal ACWY	**Prevent**	Vaccination X 1 every 5 years	GP / Nurse
Varicella serology	**Prevent**	Vaccination X 2 if needed	GP / Nurse
MMR serology	**Prevent**	Vaccination X 2 if needed	GP / Nurse
Zoster vaccination	**Prevent**	Vaccination X 1 at 60, note cautions	GP / Nurse
STIs	**Early detection and treatment**	Depending on risk group MSM: 3 – 12 monthly screens as per STIGMA guidelines	GP / Nurse

* Always order 3 tests to determine status: HBSAg, anti-HBc (HBcAb), anti-HBs (HBsAb). Vaccinate if -ve anti-HBs and -ve anti-HBc, revaccinate if anti-HBs < 10 mIU/mL.[12]
\# HCV PCR if previously treated or resolved infection

7.4 Lifestyle

Modifiable risk factors are very important for people living with HIV. Smoking particularly, is more prevalent in this population and has been shown to be associated with multiple complications including pneumonia, lung cancer and cardiovascular disease.[15] Approaches to monitoring and interventions are similar to the general population. Motivational interviewing and other lifestyle interventions such as 'Smoking, Nutrition, Alcohol and Physical activity (SNAP)'[16] provide a useful framework for patient counselling.

Patient's health needs	Management goals	Treatment and services	Arrangements for treatments/services
Smoking current:	**Complete cessation**	Opportunistic	Patient / GP / Nurse
Nutrition	**Healthy diet**	Review every 6 – 24 months	Patient /GP / Nurse/ Dietitian
	Detect and treat	Check HCV Ab at baseline, annual check if at risk#	GP / Nurse
Alcohol intake **Current drinks/day**	**Target:** **drinks/day** **Ideal: max 2 daily**	Review every 2 years	Patient / GP / Nurse
Physical activity **Current:**	**Target:** **Ideal: 30mins of mod erate activity on most days**	Review every 2 years	Patient / GP / Nurse / Exercise Physiologist

7.5 Cardiovascular / metabolic

Cardiovascular disease is more common in those living with HIV. Risk factors such as smoking are more prevalent but HIV itself appears to increase the risk of ischaemic heart disease (IHD) by about 75%[17]. Patients should have their absolute cardiovascular risk calculated using a tool such as the Australian calculator found at http://www.cvdcheck.org.au/

Diabetes, hyperlipidaemia and abnormal fat distribution (lipodystrophy) are also more prevalent in people living with HIV. The causes of these co-morbidities are complex and involve the effects of HIV as well as side effects from some ART.[18]

All patients require monitoring in line with standard guidelines. Blood pressure and weight should be checked regularly. Fasting lipids and glucose should be measured at least annually, and more frequently if abnormal. ART may need to be switched to reduce metabolic complications if they are thought to be medication related. This can be a complex decision as it is still most important to maintain good control over HIV. In general, treatment is similar to the general population except that certain medications should be avoided due to drug-drug interactions (e.g. simvastatin).

Monitoring renal and liver function is important especially when starting medications. There are specific guidelines depending on medications used.[12] Proteinuria can be assessed by urine dipstick or more precisely by protein / creatinine ratio.

Patient's health needs	Management goals	Treatment and services	Arrangements for treatments/services
Weight: **Waist:** **BMI:**	**Target weight:** **Ideal weight:** **BMI ≤ 25**	Review every 6 – 24 months	Patient / GP / Nurse / Dietitian
CV risk calculation **Absolute risk:**	**Minimise risk**	Calculate every 2 years	Patient / GP / Nurse/
Blood pressure **BP:**	**< 140/90** **< 130/80** **(DM, Albuminuria)**	Check every 6 – 24 months Lifestyle change, medication if required	Patient / GP / Nurse
Lipids **Fasting Lipids:**	**Target lipids**	Check fasting cholesterol every year Lifestyle change, medication if required	Patient / GP / Nurse/ Dietitian
Glucose **Fasting Glucose:**	**Glucose** **<5.5mmol/L**	Check fasting every year Lifestyle change, medication	Patient / GP / Nurse / Dietitian
Renal **eGFR:** **Urinalysis:**	**eGFR > 90** **Normal urinalysis**	eGFR 3-6 monthly (with ART), 6 – 12 monthly (no ART) Urinalysis at baseline, every 6 – 12 months on ART	GP / Nurse
Liver **LFT:**	**Optimise liver function**	LFT 3-6 monthly (with ART), 6 – 12 monthly (no ART)	GP / Nurse
Osteoporosis **Cal, Phos, ALP, vit D** **FRAX:**	**Optimise bone health**	Assess risk factors for Osteoporosis Females >45, Males >50 Consider BMD	GP / Nurse / Dietitian

7.6 Cancer screening

The incidence of some malignancies is much higher in the presence of HIV infection, but standard screening guidelines for cancer remain the same as the general population except for HPV related cancers. Cervical HPV screening should be performed every 3 years.[19] Anal cancer is more common in gay and bisexual males and nonbinary persons who practice receptive anal intercourse. There is ongoing research investigating optimal screening methods. Any symptoms such as anal bleeding or masses should be investigated. Currently all people with HIV infection are advised to have annual digital ano-rectal examination (DARE) from age 50.[20]

Trans and gender diverse patients need careful consideration as to their appropriate cancer screening needs based on their particular situation (i.e. presence of prostate, breast, cervical tissue).

Patient's health needs	Management goals	Treatment and services	Arrangements for treatments/services
Colon	**Early detection**	FOBT (every 2 years age 50 – 75) or colonoscopy (higher risk)	GP/Nurse
Skin	**Early detection, prevention**	Sun avoidance and protection, **Consider** regular skin checks (high risk > 40),	GP / Nurse
Cervical (female)	**Early detection**	HPV every 3 years	GP / Nurse
Breast (female)	**Early detection**	Mammogram every 2 years (age 50 – 69)	GP / Nurse
Prostate (male)	**Early detection**	Consider PSA from age 50	GP / Nurse
Anal cancer	**Early detection**	Annual digital ano-rectal examination age 50	GP / Nurse

7.7 Mental health

Depression in PLHIV is common with a prevalence of approximately 30%.[21] Assessment of mood can be performed opportunistically. PLHIV also frequently experience discrimination as well as occupational, housing, and financial disadvantage. Referral to a psychologist or peer support worker (including HIV Peer Navigators) is recommended.Neurocognitive impairment is also more common in this population however screening is controversial. Consider specialist referral if patients report symptoms such as memory loss, poor concentration or other cognitive difficulties.

Patient's health needs	Management goals	Treatment and services	Arrangements for treatments/services
Depression, mental illness	**Early detection, treatment**	Opportunistic screening	GP / Nurse
Drug use	**Early detection, treatment**	Opportunistic screening	GP / Nurse
Housing, financial situation, social support	**Optimise**	Opportunistic screening	GP / Nurse
Sexual / reproduction	**Optimise sexual function, reproductive health**	Opportunistic screening	GP / Nurse
Cognitive	**Screening questionnaire**	As indicates if at risk	GP / Nurse

8. Training

Training Options for GPs interested in HIV Shared Care See https://ashm.org.au/training/

9. Appendices

9.1 GP Management Plan for HIV

GP MANAGEMENT PLAN (GPMP-721) for HIV TEAM CARE ARRANGEMENTS (TCA-723)	
Date service provided:	
Patient's name:	
Patient's address:	
Date of Birth:	
Contact Details:	
Medicare No:	
Private Health Insurance or Health Care Card details:	
Patient's usual GP:	Patient's carer (if applicable):
Date & outcomes of previous/existing care plan:	
Other notes or comments relevant to the patient's care planning (eg. need for translator):	
Current problems:	
Medications (including OTC):	
Allergies:	
Social History: Occupation, Marital status, Sexual Orientation, Accommodation, Smoking, Alcohol	

GP Management Plan (Medicare Item: 721)			
Patient's health problems / health needs / relevant conditions	**Management goals with which the patient agrees**	**Treatment and services required, including actions to be taken by the patient**	**Arrangements for providing treatment/services (when, who, contact details)**
HIV: see ASHM http://arv.ashm.org.au			
HIV education	Good understanding of HIV Including Undetectable = Untransmissible (U=U) and Treatment as Prevention (TASP)	Patient education: disease prognosis potential transmission treatment options	GP / Nurse/ Treatment educator / Peer navigator
CD4 count and % HIV viral load	Monitor immune function	Check every 3 – 6 months	GP / Other Specialist
Interactions	Prevent problems from drug interactions	Check all current medicines at every visit	GP / Other Specialist
Continuing ART treatment	Need to take ART medication regularly once started	Assess adherence at every visit, support as needed	GP / Other Specialist
Side effects of treatment	Reduce side effects	Review side effects at every visit	GP / Other Specialist
Coinfections and vaccinations: See RACGP Redbook https://www.racgp.org.au/clinical-resources/clinical-guidelines ASHM http://arv.ashm.org.au, https://immunisationhandbook.health.gov.au/			
Hepatitis A	Prevent	Vaccination x 2 if at risk	GP / Nurse
Hepatitis B	Prevent	Vaccination x 3 if at risk	GP / Nurse
Hepatitis C	Detect and treat	Check HCV Ab baseline, annual if at risk	GP / Nurse
Influenza	Prevent	Annual vaccination	GP / Nurse
Pneumococcal	Prevent	Vaccination x 3	GP / Nurse
Tetanus/pertussis	Prevent	Vaccination every 10 years	GP / Nurse
HPV	Prevent	Vaccination x 3	GP / Nurse
Meningococcal B	Prevent	Vaccination X 2	GP / Nurse
Meningococcal ACWY	Prevent	Vaccination X 1 every 5 years	GP / Nurse
Varicella serology	Prevent	Vaccination X 2 if needed	GP / Nurse
MMR serology	Prevent	Vaccination X 2 if needed	GP / Nurse
Zoster vaccination	Prevent	Vaccination X 1 at 60, note cautions	GP / Nurse
STIs	Early detection	Depending on risk group (MSM: 3 – 12 monthly)	GP / Nurse
Prevent infections	Prevent opportunistic infections	If CD4 < 200, seek specialist advice on prophylaxis	GP / Nurse

Lifestyle: see RACGP https://www.racgp.org.au/			
Smoking current:	Complete cessation	Opportunistic	Patient / GP /Nurse
Nutrition	Healthy diet	Review every 6 – 24 months	Patient / GP / Nurse / Dietitian
Alcohol intake **Current drinks/day**	Target: drinks/day Ideal: max 2 daily	Review every 2 years	Patient / GP /Nurse
Physical activity **Current:**	Target: Ideal: 30mins of moderate activity on most days	Review every 2 years	Patient / GP / Nurse / Exercise Physiologist

Cardiovascular/metabolic risk: see RACGP https://www.racgp.org.au/ ASHM http://arv.ashm.org.au			
Weight: **Waist:** **BMI:**	Target weight: Ideal weight: BMI ≤ 25	Review every 6 – 24 months	Patient / GP / Nurse/ Dietitian
CV risk calculation **Absolute risk:**	Minimise risk	Calculate every 2 years	Patient / GP / Nurse
Blood pressure **BP:**	< 140/90 < 130/80 (DM, Albuminuria)	Lifestyle change, medication if required Check every 6 – 24 months	Patient / GP / Nurse
Lipids **Fasting Lipids:**	Target lipids	Check fasting cholesterol every year Lifestyle change, medication if required	Patient / GP / Nurse/ Dietitian
Glucose **Fasting Glucose:**	Glucose <5.5mmol/L	Check fasting every year Lifestyle change, medication	Patient / GP / Nurse/ Dietitian
Renal **eGFR:** **Urinalysis:**	eGFR > 90 Normal urinalysis	eGFR 3-6 monthly (with ART), 6 – 12 monthly (no ART) Urinalysis at baseline, every 6 – 12 months on ART	GP / Nurse
Liver **LFT:**	Optimise liver function	LFT 3-6 monthly (with ART), 6 – 12 monthly (no ART)	GP /Nurse
Osteoporosis **Cal, Phos, ALP, vit D** **FRAX:**	Optimise bone health	Assess risk factors for Osteoporosi Females >45, Males >50 Consider BMD	GP / Nurse / Dietitian

Cancer screening: see RACGP https://www.racgp.org.au/			
Colon	Early detection	FOBT (every 2 years age 50 – 75) or colonoscopy (every 5 years if +ve Fhx)	GP / Nurse
Skin	Early detection, prevention	Sun avoidance and protection, **consider** regular skin checks (high risk > 40)	GP / Nurse
Cervical (female)	Early detection	HPV every 3 years	GP / Nurse
Breast (female)	Early detection	Mammogram every 2 years (50 – 69)	GP / Nurse
Prostate (male)	Early detection	**Consider** PSA from 50	GP / Nurse
Anal cancer	Early detection	Annual digital anorectal examination 50	GP / Nurse

Psychosocial See RACGP Redbook https://www.racgp.org.au/clinical-resources/clinical-guidelines, ASHM http://arv.ashm.org.au			
Depression, mental illness	Early detection, treatment	Opportunistic screening	GP / Nurse
Drug use	Early detection, treatment	Opportunistic screening	GP / Nurse
Housing, financial, social support	Optimise	Opportunistic screening	GP / Nurse
Sexual / reproduction	Optimise sexual function, reproductive health	Opportunistic screening	GP / Nurse
Cognitive	Screening questionnaire	As indicates if at risk	GP / Nurse

Other prevention: See RACGP Redbook https://www.racgp.org.au/clinical-resources/clinical-guidelines			
Dental health	Optimise dental health	Referral for regular dental care	GP / Nurse / Dentist
Glaucoma / vision	Prevent visual loss	Referral if at risk eg FHx, CD4 < 50	GP / Nurse

Other Health Problems

Health problems	Goals	Treatment and services	Arrangements

Coordination of Team Care Arrangements (Medicare Item 723)		
Treatment and service goals for the patient / changes to be achieved	**Treatment and services that collaborating providers will provide to the patient**	**Actions to be taken by the patient**
Optimise general health	GP	Attend 3 monthly
Optimise immune function	HIV specialist	Attend 6 monthly
Optimise dental health	Dentist	Attend 6 monthly
Optimise vaccinations	Practice nurse	Attend as needed
Optimise nutritional health	Dietitian	Attend as needed
Optimise mental health	Psychologist / counsellor	Attend as needed

721	☐ I have explained the steps and costs involved, and the patient has agreed to proceed with the GP MANAGEMENT PLAN service	GP'S SIGNATURE & DATE
723	☐ I have explained the steps and costs involved, and the patient has agreed to proceed with the TEAM CARE ARRANGEMENTS service ☐ The patient also agrees to the involvement of other care providers and to share clinical information without / with restrictions (identify)	GP'S SIGNATURE & DATE
☐ I give my permission for my GP to discuss my medical history/diagnosis with other service providers. I understand that referral for service can still go ahead if I do not want information about me made know to the service providers. ☐ I understand the above Management Plan recommendations and agree to the outlined goals.		PATIENT/CARER SIGNATURE & DATE

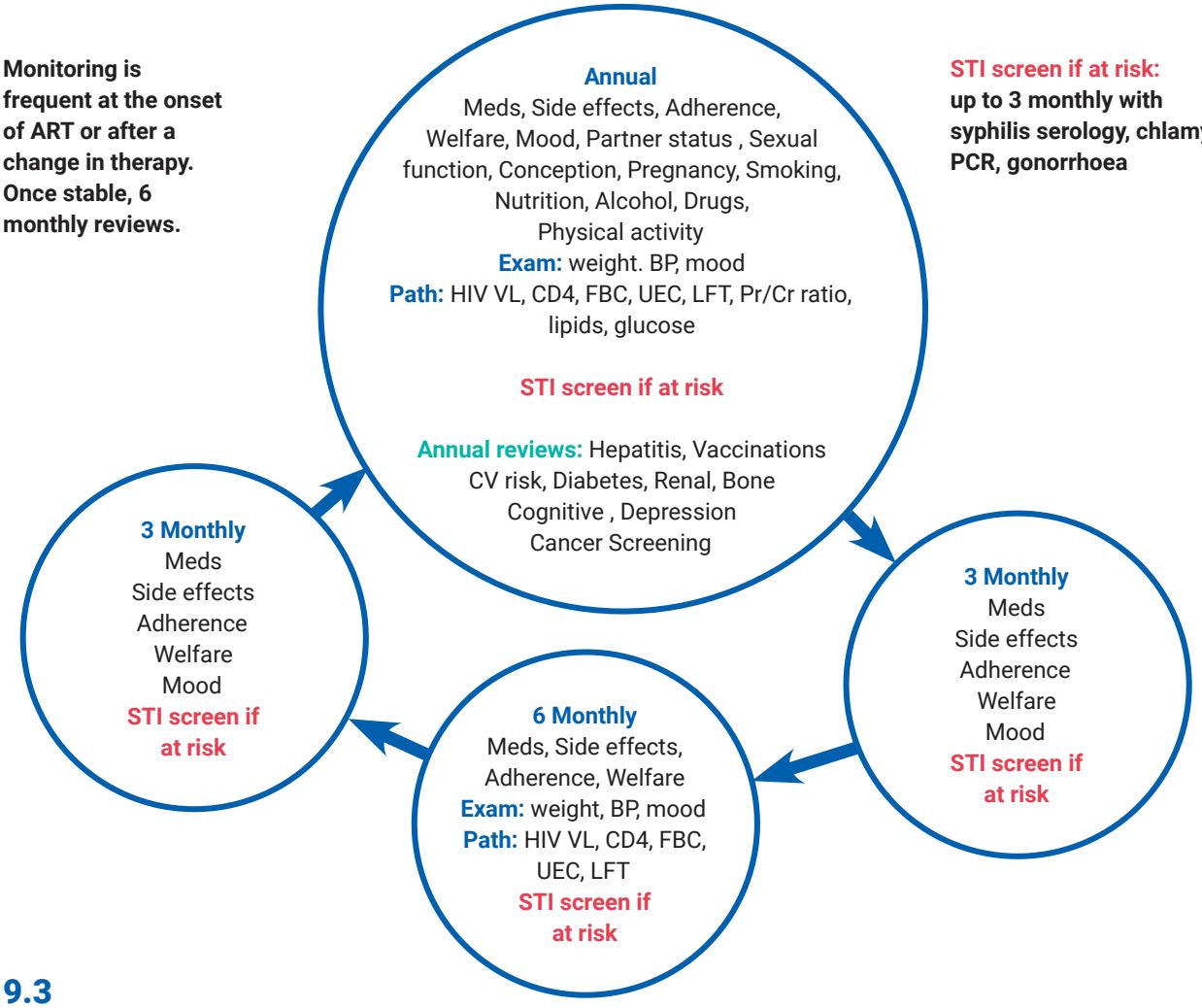
Any information the patient wants withheld:

Copy offered to patient?	☐ YES
Copy added to the patient's records?	☐ YES
Date GPMP completed:	/ /
Date TCA completed:	/ /
Copy / relevant parts of GPMP/TCA supplied to other providers? (Mandatory for 723)	☐ YES / ☐ NO / ☐ NA
Review Date: (6 months)	/ /

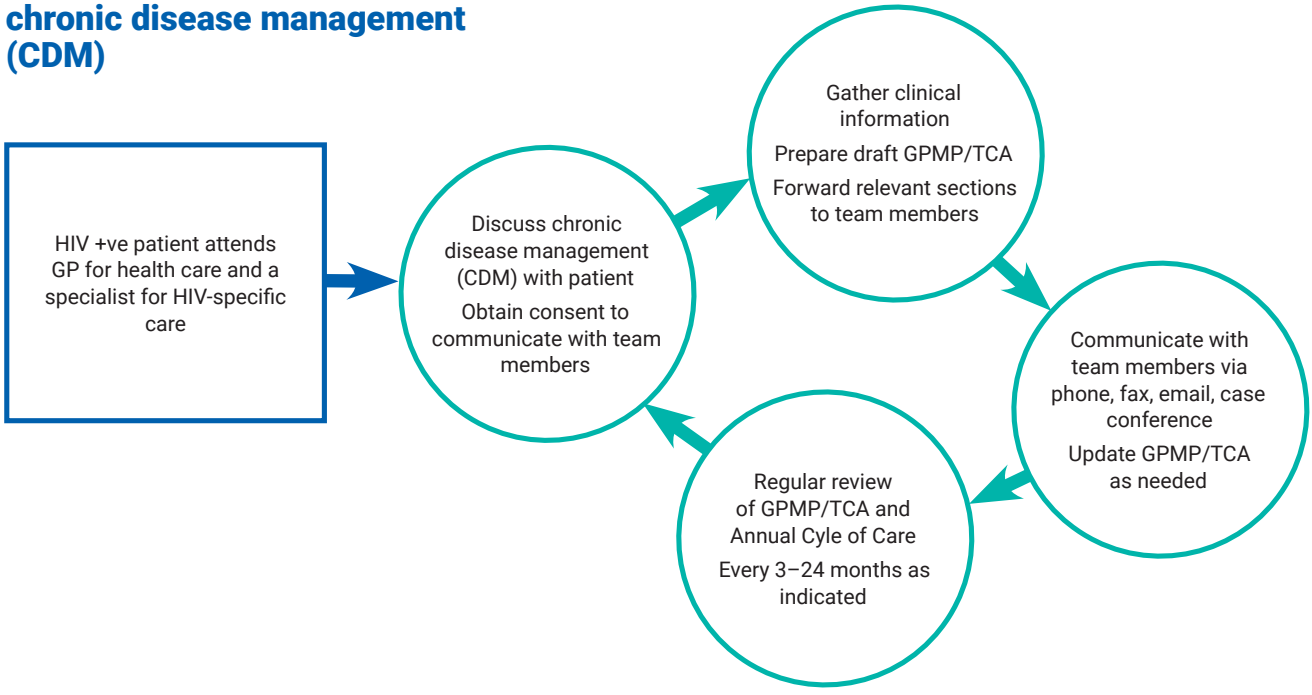
9.2
Annual Cycle of Care for Patients with HIV Infection on Stable Maintenance Therapy

Monitoring is frequent at the onset of ART or after a change in therapy. Once stable, 6 monthly reviews.

STI screen if at risk: **up to 3 monthly with syphilis serology, chlamydia PCR, gonorrhoea**



9.3
Flow chart for shared care chronic disease management (CDM)



9.4
Sample letter to Team Care Arrangement (TCA) team members

Letterhead

Date

Health Care Provider

Re:

Dear

I am preparing a Team Care Arrangements (TCA) for this patient who has given consent to include you as a member of the team.

Could you please advise me by phone or fax if you agree to be involved in the Team Care Arrangements for this patient?

A draft copy of the TCA is attached.

Yours sincerely

Doctor

Provider number

- ☐ I am willing to be involved in this Team Care Arrangements and I am in agreement with the enclosed TCA
- ☐ I am willing to be involved in this Team Care Arrangements, and I would like to make some changes to the plan (please attach your suggested changes).

Signature: ……. Date: ……/……/……

Fax back

9.5
Example of a shared care GP case

- Hugh is a 50-year-old gay male, HIV +ve 1995, attending your practice for 12 years
- Presents with 1-month history of shortness of breath at the gym
- HIV managed by specialist, well controlled on ARVs, HIV viral load <20, CD4 = 570, three years mild hypertension - perindopril 5 mg daily
- Normal EUC, LFTs, glucose and lipids, normal FBC
- Smoking intermittently, currently 10 a day
- Examination normal, BP = 128/74
- 177 cm, 86 kg, BMI = 27
- Chest XR, spirometry, resting ECG normal
- Referred for stress echocardiogram which is abnormal, referred to cardiologist who detects coronary artery disease and stents the left anterior descending artery
- Patient discharged to your care on atorvastatin, aspirin and clopidogrel

This patient qualifies for a GPMP / TCA. The plan is written by the GP and forwarded for comment to Hugh's HIV specialist along with the covering letter. The specialist copies recent results to the GP.

721 GP MANAGEMENT PLAN (GPMP) for HIV
723 TEAM CARE ARRANGEMENTS (TCA) (if applicable)

Date service provided: 2 April 2015

Patient's name: Hugh

Patient's address:

Date of Birth:

Contact Details:

Medicare No:

Private Health Insurance or Health Care Card details:

Patient's usual GP: **Patient's carer (if applicable):**

If the patient has a previous or existing care plan, when was it prepared and what were the outcomes:

Other notes or comments relevant to the patient's care planning (eg. need for translator):

Current problems:
HIV infection 1995: ARVs since 2005
Ischaemic heart disease: LAD stented 2014
Smoking: 10 /d
Overweight: BMI 27

Medications (including OTC):
ARVs
Aspirin
Clopidogrel
Atorvastatin
Perindopril

Allergies: nil

Social History: Occupation, Marital status, Sexual Orientation, Accommodation, Smoking, Alcohol: 10 cigs /d

GP Management Plan (Medicare Item: 721)

Patient's health problems / health needs / relevant conditions	Management goals with which the patient agrees	Treatment and services required, including actions to be taken by the patient	Arrangements for providing treatment/services (when, who, contact details)
HIV:			
HIV education	Good understanding of HIV	Discuss 2/4/15	GP / HIV clinic nurse
CD4 = 570 - 4/3/15 HIV viral load <20	Monitor immune function	Check every 3-6 months	Specialist HIV clinic
Drug Interactions	Prevent	Checked 2/4/15	GP / Specialist
Continuing ART	Adherence	Misses 1-2 doses / month	GP / HIV clinic nurse
Side effects	Reduce side effects	Nil reported 2/4/15	GP / Specialist
Coinfections and vaccinations:			
Hepatitis A	Prevent	HAV Ab +ve 2/5/13	Specialist / HIV clinic nurse
Hepatitis B	Prevent	HBsAb = 830 2/5/13	Specialist / HIV clinic nurse
Hepatitis C	Detect	HCV Ab –ve 4/3/15	Specialist / HIV clinic nurse
Influenza	Prevent	Vaccination 2015	GP / Practice nurse
Pneumococcal	Prevent	Vaccination 2005	Specialist / HIV clinic nurse
Tetanus/pertussis	Prevent	Vaccination 2005	GP / Practice nurse
STIs	Early detection	Full screen 4/3/15	Specialist / HIV clinic nurse
HPV	Prevent	Patient considering	GP / Nurse
Prevent infections	N/A as high CD4	Nil	Nil
Lifestyle:			
Smoking 10 /d	Complete cessation	Supportive counselling	Patient / GP / Practice Nurse
Weight, 86 kg, bmi = 27 on 2/4/15	Target weight: 80 kg	Review every 6 – 24 months	Patient /GP / Nurse / Dietician
Nutrition	Healthy diet	Review every 6 – 24 months	Patient /GP / Nurse / Dietician
Physical activity Current: gym 3 d/wk	Target: inc walking	Review every 2 years	Patient GP / Nurse / Exercise Physiologist
Alcohol 2 drinks 2 days /wk	Target: at target	Review every 2 years	Patient / GP / Nurse

Cardiovascular / metabolic:			
CV risk calculation High as had event	Minimise risk	Optimise CV risk factors	Patient / GP /Nurse
Blood pressure 128/74 - 2/4/15	< 130/80 post event	Annual check	Patient / GP / Nurse
Lipids TC = 5.3, HDL = 1.1, LDL = 2.6 4/3/15	Optimise lipids – LDL < 1.8 post event	Annual check	Patient /GP / Nurse Dietician
Glucose fasting glucose = 5.1 4/3/15	Fasting glucose <5.5 mmol/L	Annual check	Specialist HIV clinic
Renal eGFR > 90 – 4/3/15 urinalysis n 4/3/15	eGFR > 90 normal urinalyses	eGFR 6 monthly Urinalysis annual	Specialist HIV clinic
Liver normal 4/3/15	Optimise liver function	LFT 6 monthly	Specialist HIV clinic
Osteoporosis	Optimise bone health	Booked in for DEXA at hospital	Specialist HIV clinic

Cancer screening:			
Colon	Early detection	-ve FOBT at 50	GP / Nurse
Skin	Early detection, prevention	Sun avoidance and protection, consider regular skin checks	GP / Nurse
Prostate (male)	Early detection	Patient not wanting after counselling	GP / Nurse
DARE	Early detection	DARE attended, NAD	GP / Nurse

Psychosocial:			
Depression, mental illness	Early detection, treatment	Opportunistic screening	GP / Nurse
Drug use	Early detection, treatment	Nil of concern	GP / Nurse
Housing, financial situation, social support	Optimise	Nil of concern	GP / Nurse
Sexual / reproduction	Optimise sexual function, reproductive health	Regular HIV –ve partner, uses condoms Knows about PEP /PrEP. Regular testing of partner (eg 6 monthly)	GP / Nurse

Other prevention: see RACGP Redbook https://www.racgp.org.au/clinical-resources/clinical-guidelines			
Dental health	Optimise dental health	6 monthly care	Dentist
Glaucoma / vision	Prevent visual loss	n/a	GP / Nurse

Other Health Problems			
Health problems	Goals	Treatment and services	Arrangements
Ischaemic heart disease	Prevent progression or complications	Optimise risk factors as above	Cardiologist in 6 months

Coordination of Team Care Arrangements (Item 723)

Treatment and service goals for the patient / changes to be achieved	Treatment and services that collaborating providers will provide to the patient	Actions to be taken by the patient
Optimise general health	GP	Attend 3 monthly
Optimise immune function	HIV specialist	Attend 6 monthly
Optimise cardiovascular health	Cardiologist	Attend 6 monthly
Optimise dental health	Dentist	Attend 6 monthly
Optimise vaccinations	Practice nurse	Attend as needed
Optimise nutritional health	Dietician	Attend as needed
Optimise mental health	Psychologist / counsellor	Attend as needed

721	☑ I have explained the steps and costs involved, and the patient has agreed to proceed with the GP MANAGEMENT PLAN service	GP'S SIGNATURE & DATE
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☐ I understand the above Management Plan recommendations and agree to the outlined goals.

PATIENT/CARER SIGNATURE & DATE

Any information the patient wants withheld:

Copy offered to patient?	☐ YES
Copy added to the patient's records?	☐ YES
Date GPMP completed:	2 April 2015
Date TCA completed:	2 April 2015
Copy / relevant parts of GPMP/TCA supplied to other providers? (Mandatory for 723)	☐ YES / ☐ NO / ☐ NA
Review Date: (6 months)	2 October 2015

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