

Recommended principles and practice of HIV clinical care in Hong Kong

(Scientific Committee on AIDS and STI (SCAS), Centre for Health Protection,
Department of Health)

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CME / CNE / PEM point accreditation (*please refer to the attached test paper for the number of credit points awarded*)

Background

In Hong Kong, the first HIV diagnosis was made in 1984. This was soon followed by a gradually expanding epidemic, affecting primarily the marginalised populations of persons with haemophilia, men who have sex with men (MSM), sex workers and injecting drug users (IDU). Not surprisingly, contentious issues have emerged which touched on areas such as privacy, access to care, and infection control. In most of these cases, debate has successfully led to clarification of practice or consensus of opinion.

For three decades, Hong Kong's overall response to AIDS has been marked by pragmatism, respect of fundamental human rights and consistency with major international guidance. The Hong Kong Advisory Council on AIDS (1990) helped set its tone by laying down principles and strategies;¹ the AIDS Trust Fund (1993)² supplemented with funding to areas of most need; and the Disability Discrimination Ordinance (1995) and related laws defined a supportive legal framework.

It is in this environment where the HIV clinical programme has evolved. While it may have originated as a makeshift response to an unexpected need, it has since matured and adapted to the changing treatment landscape and increasing patient population, all in compliance with the prevailing infrastructure of care delivery and in response to the forces of the epidemic.

Currently, there are three designated HIV clinical services in the public sector: the Integrated Treatment Centre (ITC) of the Department of Health, the AIDS Clinical Service of Queen Elizabeth Hospital (QEH), and the Infectious Disease Special Medical (IDSM) clinic of Princess Margaret Hospital (PMH). These centres serve the vast majority of HIV infected patients engaged in care. In addition, they receive referrals of clients exposed in an occupational or non-occupational setting.

A special clinic at Prince of Wales Hospital (PWH) was also set up in 2005 to cater for a large number of patients with metabolic complications, and the two paediatric services at Queen Mary Hospital and Queen Elizabeth Hospital have been serving virtually all HIV infected children in Hong Kong.

Inpatient HIV care was originally deemed as one at a quaternary level and restricted to QEH alone. As of now, most major public hospitals are capable of delivering at least basic HIV inpatient care, supported when necessary by QEH, PMH or PWH.

This system of care not only afforded patients a certain extent of choice but more importantly cultivated a core expertise of HIV disease management. In 2005, six principles were defined by the then Scientific Committee on AIDS to govern delivery of HIV care in Hong Kong.³ More specifically they stipulated that -

- HIV medicine be developed as an expertise area;
- HIV care be provided by a multidisciplinary professional team;
- quality care and services be accessible;
- a continuum of prevention and care be provided;
- both the community and community resources be involved and mobilised; and
- a patient's confidentiality and privacy be respected.

These principles have remained largely valid to this date. However, their interpretation, scope and emphasis have obviously changed. There are now also sizeable overlaps when putting these principles into practice. These are not surprising considering many of the interim developments since then.

- Antiretroviral therapy minimises the occurrence of immune related conditions and prolongs survival. Yet, new, non-traditional complications, such as those with the liver, kidney and bone have emerged, requiring new liaison with other specialists. Long term survival also brought with it challenges normally associated with ageing.
- The ability of treatment to prevent onward HIV transmission in diverse populations including MSM, IDU and heterosexual discordant couples is conclusively proven. More recently, the clinical benefit of very early combination antiretroviral therapy in those with high CD4 cell counts has also been shown. These findings have effectively dissolved the tension between public health and clinical indications of treatment.
- HIV prevention has evolved from a unidimensional concept of the condom barrier to a multi-layered effort. A combination approach of biomedical, behavioural and structural interventions is now considered optimal for the best prevention effort. Many of its components can and should be delivered in the clinical setting.
- Both the scale and pace of the epidemic have picked up considerably in Hong Kong. Record number of new infections as well as dramatically lowered mortality by treatment challenge our capacity to maintain comprehensive, high quality care. Nevertheless, it is vital that neither the standard of care should be compromised nor any of the clinic-based public health elements be overlooked.
- That treatment leads to prevention has been appropriately expanded to the concept of using 'universal test-and-treat' as the means to reverse the global epidemic.⁴ Operationally, the Cascade of Care, which begins with making the diagnosis and ends with viral suppression, grades the progress made by a community towards this goal. Gaps identified in between stages of the cascade provide guidance as to where enhanced investment should be made.
- The specialty of Infectious Disease has made significant commitment to HIV care in recent years, incorporating HIV medicine into its core training curriculum. Infectious Disease specialists now account for the vast majority of doctors newly joining the HIV service. Their presence has also made it possible for most public hospitals to provide basic HIV inpatient care, and as internal physicians, they are well poised for primary care of these patients.
- Although care is currently delivered mostly in the public sector, there are indications of some private practitioners becoming involved in certain aspects of HIV care, such as post exposure prophylaxis, treatment of intercurrent sexually transmitted infections, health maintenance and, with a few practitioners, prescription of antiretrovirals for chronic HIV

disease. This is a development that could potentially be leveraged for broader involvement of the medical community, with a view to further strengthening the local cascade of care.

In Hong Kong, the HIV clinic has never been a purely medical proposition. It is a hub of important clinical and non-clinical activities, ranging from medical treatment, counselling on psychosocial issues, rehabilitation, health maintenance, and, last but not least, deliverance of public health initiatives. This document, while reaffirming the validity of the principles previously presented, also attempts to reinterpret them in light of current circumstances and update local and international standards.

These principles apply to both adults and adolescents, most of the latter being followed by either of two paediatric HIV clinics. Of note, needs of HIV infected children can be quite different and they are not specifically addressed here. On the other hand, although the intended audience is primarily the HIV specialist and the HIV specialty clinic, the general medical community should also take note of these recommendations, many of which apply in their practice in one way or another.

Principle One. Practice of HIV Medicine requires special expertise for optimal care of People Living with HIV/AIDS (PLHA)

The availability and success of antiretroviral therapy could foster a false sense of security. Disease complications of HIV have continued to occur. In some instances, the previously predictable progression of AIDS has been altered by immune reconstitution. Non-AIDS-related complications are assuming ever increasing importance. Adverse effects of antiretrovirals could be unusual, unexpected and unknown to ‘generalists’, thus requiring careful long term monitoring and management. These argue for the importance of research in an HIV clinic to promote the best outcome. Furthermore, the need of physicians specialised in HIV medicine has become obvious.

This HIV specialist will also need to have sufficient breadth of knowledge necessary for following a patient cohort characterised by ageing on the one hand, and a rapidly growing segment of young men, mostly MSM, on the other. Whereas the former would require a broad range of general medical, if not geriatric, care, the latter would benefit from an emphasis on treatment adherence, psychosocial support, harm reduction, and a tailored prevention approach toward HIV transmission.

The sensitive nature of the HIV diagnosis and the relatively small number of patients limit the exposure of medical students and trainee doctors to HIV care. Currently, only the specialty of Infectious Disease requires compulsory training in HIV medicine. Infectious Disease physicians also represent the biggest group of specialists delivering HIV clinical care in Hong Kong.

Thus, specialist qualification in Infectious Disease should be regarded as sufficient for entry into practice of HIV medicine, but it should not be the only pathway. Internal physicians of various subspecialties who have shown special interest have been delivering excellent care for years. In either case, it should be the continued involvement in actual care and commitment to excellence that underlie a physician’s competence as an HIV specialist. Further efforts should therefore be made to define the essential qualities of such competency, the value of continuing medical education and the possible role of credentialing.

The complexity of antiretroviral treatment, the lifelong commitment required of patients, and the possibility of unforgiving drug resistance mandate careful and competent management and only in settings with adequate laboratory support and expertise. In circumstances such as those for postexposure prophylaxis, short term prescription of antiretrovirals may be required urgently of front line physicians. It is essential that access to expert advice be made easily available to them.

Principle Two. Effective HIV care requires a multi-specialty and multi-disciplinary team approach

The breadth of HIV care transcends arbitrary boundaries of medical specialties and clinical disciplines. An HIV specialist cannot perform in a vacuum and must partner with other professionals in a multispecialty, multidisciplinary team for effective care. The core care team in the clinic, led by the HIV physician, would benefit from the inclusion of a case manager, nurse-counsellor, social worker, and a clinical psychologist. However, the focus should not be on job titles but on fulfilling the roles of such.

Beyond the clinic, collaboration with other specialists and professionals of other disciplines is almost unavoidable in the longitudinal care of a patient. Psychiatric, ophthalmological, surgical, obstetric and gynaecological, and oncologic consultations are common examples. Prompted by need and in spite of the relatively small size of the patient population, the public sector has previously developed a horizontal network of referral and collaboration among dedicated and interested professionals.

However, it is crucial that this network of partnership be dynamic, adjusting to the changing needs of patients. For instance, with the continued use of antiretroviral therapy and prolonged patient survival, we have witnessed the increasing need to manage cardiovascular risk factors, and emergence of diabetes, hepatic diseases and kidney complications as common co-morbidities. More recently, it has become clear that osteoporosis and HIV-associated neurocognitive disorder will be long term issues. Various psychiatric and oncologic conditions are other examples illustrating the multi-faceted health needs of patients. Successful management requires networking with diverse specialties. In fact, as complexity and the patient population grow, it is now imperative to expand this partnership **(Diagram)**.

For effective care, a responsive and comprehensive laboratory service is indispensable. Both the Department of Health and Hospital Authority have taken the lead in providing essential investigations for disease monitoring and treatment support, including CD4 count enumeration, viral load assays, genotypic resistance tests and molecular diagnostics for some HIV-associated complications, not uncommonly after pioneering research efforts of local research institutes.

A standard of care is now being maintained in broad terms by peer-reviewed guidelines and in more specific terms by recommendations of the Scientific Committee on AIDS and STI, and clinical governance in the form of case reviews, joint rounds, clinical audit, morbidity & mortality meetings, collaborative research, and indicators of clinical effectiveness and quality of life. An HIV Manual co-written by major HIV care providers in Hong Kong provides useful reference for management protocols.⁵ As a system of quality assurance, this should not be exclusive to the public sector and academia. An inclusive approach to all and especially new HIV care providers of the private sector is important if an acceptable standard were to be maintained across all of Hong Kong.

Principle Three. A clinic-based, tailored package of prevention interventions should be delivered to the patient

The transmission routes of HIV are well known. Effective means to prevent HIV are also established and not overly complicated. However, the epidemic continues to spread, mainly by the sexual route and especially between MSM. This indicates substantial risk behaviour of HIV infected individuals.

Therefore, the fact that the majority of diagnosed PLHA in Hong Kong have been engaged in clinical care at least at some point highlights the importance of the HIV clinic as a venue of the prevention care continuum. The HIV clinician and his team need to recognise their inherent, dual duty of individual care and public health responsibility toward prevention of onward HIV transmission. In the clinic, a variety of prevention instruments can and should be employed, their combination for any individual to be tailored to risk profile and changing needs.^{6,7}

Risk reduction counselling

Contrary to what some people choose to believe, it works to counsel against risk behaviour, be it unprotected sex or sharing injection paraphernalia. Counselling entails targeted information, education and communication according to individual profiles and circumstances. It does not necessarily require specialist training and can be effective even if brief. However, it needs to be consistent in content and also continually given in the appropriate context.

Other than addressing specific transmission risks, counselling should seek to improve HIV knowledge and awareness, and promote attitudes and norms that reduce risks. Advice should not be limited to use of condom but supplemented with other ways of prevention if applicable. There are patients who may also benefit from another barrier method, another biomedical approach, serosorting or even abstinence. Recruitment of resources from the community or other health care organisations may be considered for maximal impact.

Practical obstacles to counselling may exist in the form of time limitation or unease on the part of the health care provider to broach sensitive issues. A fatalistic belief that counselling will not change behaviour may also be accountable. These need to be overcome. A systematic and written protocol has been shown to lead to improved performance.⁸

Partner counselling and referring service (PCRS)

It is of great public health importance that partners who may have shared HIV risks with the index patient be tested for HIV and, if positive, to take advantage of early treatment. If negative, they could still benefit from awareness of an infection risk and counselling on prevention. This voluntary and yet desirable process of PCRS is delicate, sensitive and sometimes prolonged, requiring tact and patience of the health care provider and hence best done in the HIV clinic.

Treatment as prevention

Evidence is conclusive that patients on effective treatment have vastly decreased risks of transmission.⁹ More recent research also indicates that a patient benefits clinically from treatment at high CD4 counts.^{10,11} There is thus no conflict between clinical and public health considerations in initiating antiretroviral treatment. Suppressing the viral load of all HIV infected patients is the idealistic goal toward which the HIV clinic plays a pivotal role. **(Figure)**

Prevention of mother-to-child transmission (MTCT)

A high degree of success is expected in the prevention of MTCT if the full preventive regimen of antiretrovirals can be given to expectant patients and the newborn. A programme to prevent MTCT should therefore be in place, targeting all women of reproductive age and beginning even before conception is contemplated. On the one hand, assistance should be given toward effective contraception, acknowledging the reality that the condom may not be consistently and correctly used

for some patients. On the other, guidance would need to be given particularly for those serodiscordant couples planning to conceive. In Hong Kong, antenatal mothers are universally tested for HIV in an opt-out setting. Testing should be repeated for negative mothers if there is any possibility of new or continuing risk. For any pregnant HIV infected patient, a team of HIV physician, obstetrician and paediatrician should work closely for the optimal clinical management and prevention strategy of MTCT.¹²

Substance use

It is becoming obvious that substance use contributes to the HIV epidemic beyond that by sharing injection equipment. Non-injection, recreational drug use is itself associated with high risk behaviour. A rising trend of substance use is noted with new MSM patients and is cause for concern. Therefore, an active effort has to be made to uncover ongoing substance use with a view to rendering professional help and reducing high risk behaviour. In this regard, it is imperative that more effective treatment services be developed in Hong Kong which target these individuals, including those uninfected but at risk and especially members of the MSM community. A non-judgmental, harm reduction approach should be adopted.

Sexually transmitted infection (STI) prevention, screening and treatment

STI *per se* increases infectivity of HIV. It should be periodically screened for at sites of sexual contact not only for treatment but, depending on circumstances, for further risk-reduction counselling, referral to addiction specialist, antiretroviral treatment if not already started, or as trigger for PCRS.

Using antiretrovirals in the HIV negative

As experts in the use of antiretrovirals, the HIV specialist and his clinic are well positioned to provide consultation and followup for those potentially exposed to HIV. In Hong Kong, these clients are often first seen and sometimes started on post-exposure prophylaxis in the Accident & Emergency Department of hospitals. Other than managing the treatment and follow up for seroconversion, one should take advantage of these opportunities to intervene for prevention.

Clinical studies have been generally supportive of the efficacy of antiretroviral pre-exposure prophylaxis (PrEP) in patients with substantial risk of acquiring HIV. PrEP is also increasingly accepted by international authorities, including WHO.¹³ Nevertheless, PrEP is not without controversy, dependent on multiple factors of HIV epidemiology and response of a locality. As of now, implementation of PrEP programme has not been common worldwide and its role in Hong Kong has yet to be determined.

Principle Four. There should be equitable access to high quality care which is conducive to retaining patients

Antiretroviral treatment, essential for HIV treatment, is readily available in the public sector. However, care is not mere dispensing of drugs. One should be cognizant of the disadvantaged status that an HIV diagnosis still carries both socially and in general access to care. Were he/she to enjoy the optimal health outcome attainable with treatment, an HIV infected patient should be able to access care that is equitable, convenient, humanistic and comprehensive.

In today's terms, access is gauged by the Cascade of Care in which proportions are estimated for the sequential stages of diagnosis, engagement, retention in care, treatment and viral suppression.¹⁴ A

relatively leak-less cascade is not only beneficial to individual health outcomes, it is key to control of the epidemic itself. Hence, the HIV clinic should be systematic in regularly monitoring and improving its performance in each of the steps. Similarly, regular estimation of the clinic and on-treatment viral loads should be considered with a view to improving performance.

Nevertheless, these metrics will be useful only in so far as complete and timely data are available. Currently, the three major HIV clinics contribute to a collective database of patients under care. This effort is crucial and should be expanded to all who care for HIV infected patients in Hong Kong, in both the public and private sectors. The local HIV reporting system, being voluntary and anonymous, also requires the contribution of all care providers, HIV specialist or not, without which the very surveillance of the epidemic will not be possible.¹⁵

Indeed, the HIV clinic has a role to play in all facets of the Cascade (**Figure**).

- Patients living with HIV/AIDS (PLHA) - Deliverance of effective treatment and a tailored package of prevention will help reduce onward transmission of known patients. Post- and pre-exposure management, including prevention counselling, will benefit uninfected patients.
- Proportion of PLHA diagnosed - the HIV physician has a leadership role in encouraging screening in the health care setting. While the presence of any risk factor or a suggestive clinical condition should prompt testing, routine screening of all patients in the health care setting is also encouraged. As clinical consultant, the HIV specialist will contribute to early diagnosis by either direct involvement in patient management or knowledge sharing with colleagues. PCRS in the HIV clinic facilitates prevention as well as new diagnosis. STI prevention, screening and treatment reduce infectiousness.
- Engagement in HIV care - A simple, clear pathway for referral should be established and advertised. This pathway begins with 'catchment' at front line clinicians, laboratory services, designated and outreach testing sites, or universal testing programmes, and quickly reaches the HIV clinic. Expedited and flexible appointments should be made available if necessary. Barriers of engagement exist in various guises. Mobilisation of resources from the community, such as social workers and peer support by NGO may be useful. Of note, newly infected patients have a particularly high risk of transmission which will benefit from rapid engagement for HIV prevention and treatment.
- Retention in care - Factors hindering retention in care should be proactively assessed for and effectively dealt with. Fear of disclosure, unstable housing, substance use, depression, and financial hardships are some of the more commonly cited barriers. The case manager of the HIV clinic should be equipped to intervene in these situations.
- Treatment - Fully and honestly addressing a patient's concerns helps him accept his new status, which is a prerequisite of his accepting and adhering to a lifelong treatment. Adverse effects should be very effectively managed. An individualised and flexible approach is preferred to the routine offering of a fixed regimen.
- Viral suppression - Monitoring for primary resistance in new patients will inform choice of treatment. The vast array of antiretrovirals available nowadays makes the goal of viral suppression realistic even in patients with resistant virus. Loss of viral suppression usually stems from lack of adherence, in which case remedial efforts should be quickly made and

resistance covered with change of treatment. Experimental treatment should rarely be necessary and should be limited to clinical trials.

A relatively simplistic goal has been set by UNAIDS. In its 90-90-90 vision, 90% of PLHA will know his diagnosis; 90% of diagnosed patients will be on treatment, and 90% of treated patients will have viral suppression.¹⁶ This will not be attainable without the full scale support of all care providers.

Principle Five. All rights of the patient should be respected

An HIV diagnosis subjects its patients to prejudice and discrimination. In one local study, HIV/AIDS was found to be more stigmatising than SARS and tuberculosis.¹⁷ In another, 26.8% of PLHA reported discriminatory act or attitude by health care and social service providers.¹⁸ As advocate of their patients, all care providers should not only be acutely aware of this, but also the important fact that their rights are fully protected by law. It is advisable to strengthen teaching in this regard during their undergraduate training. As of now, one medical school in Hong Kong includes clinical attachment to an HIV clinic in its curriculum. There are also similar arrangements with some nursing schools. This should help further the understanding of patients' needs and sensitivities, and promote the acceptance of PLHA by the medical community.

Privacy is a fundamental right of any person, with or without HIV. Forced disclosure of HIV status is very rarely justifiable, if at all. There is thus no place for mandatory HIV testing. And no person should ever be tested for HIV without his knowledge. In the same vein, universal testing for certain populations must be carried out only in an informed manner and where ample opportunity to opt out is given.¹⁹

Although the principle of the privileged doctor-patient relationship is well known, one should not take confidentiality for granted, especially in this age of electronic information. It requires a proactive mindset to ensure that confidentiality is maintained. Any sensitive information, for example, should not be entered without due consideration as to who will have access to it. It is inappropriate to openly discuss patient information in public places, such as elevator and restaurant. In a multi-carer setting, sensitive information should only be shared on a need-to-know basis and only with counterparts who also respect the importance of confidentiality. This principle is extended to infection control in the health care setting where Standard Precaution suffices against HIV, without the need to know the HIV status of the provider or the patient.²⁰

A patient has every right to autonomy which is not undermined by being HIV positive. For instance, a woman patient's decision to conceive should be autonomous and informed, based on availability of effective prevention against MTCT, as well as other medical, social and familial considerations. Any treatment, including antiretroviral, should also be fully explained to a patient for an informed decision. But ultimately the decision is his or hers only. Study trials should not be conducted without proper institutional approval and scrutiny. Participation in these studies should be fully informed and non-coercive.

All clinic staff, be they professional, administrative or supportive, should receive training on or be sensitised to these issues. Clinic protocols and policies should be regularly reviewed to ensure a service that is affirming, free of discrimination, respectful of confidentiality, and responsive to the sensitivities and changing needs of patients.

Principle Six. There should be community support, participation and acceptance

Community based organisations have an important role to play in supplementing or bridging gaps of care. Transport service, peer support and education, respite and outreach nursing service have been effective for the right patient alone or in various combinations. The capacity of some AIDS-specific non-government organisations to render additional support for marginalised groups is an especially valuable resource. A multidisciplinary team conversant with available resources from the community as well as the general health care sector is important.

Nowadays we are able to anticipate physical recovery with effective treatment, but psychosocial rehabilitation continues to be difficult. Such is the challenge of living life long with a very stigmatising disease. But this is also where the HIV clinic makes its impact. Counselling, education and self-support groups empower patients. A compassionate, sensitive and accepting attitude of care providers helps rebuild self-esteem. A rigorous practice that fully respects the interests of the patient will bear upon professional and societal norms and attitudes to PLHA. And the involvement of community resources into its care model also prepares a patient toward reintegration into mainstream society.

Ultimately, it should be clear to all that the spread of HIV is driven by prejudice against people with HIV and the associated lifestyle factors. Tangible and intangible discriminatory practices negatively impact efforts of prevention, health status of patients, and make full reintegration of PLHA into society a distant goal. HIV care providers can make contributions to promoting societal acceptance of their patients, even if indirectly, by participating in public health and health education activities, and by identifying instances of unfair practices.

Looking forward

Two decades into using effective treatment in Hong Kong, we have witnessed the resounding success in improving life span and life quality. In many developed countries, life expectancy of PLHA is comparable to that of people without HIV. We however should not be misled to complacency. A growing patient population as a result of improved survival and an ongoing epidemic has actually added to our challenges.

The capacity of HIV care will have to keep pace with need, the existing network of specialist support should expand to all major hospitals, and clinic-based intervention for prevention has to be further strengthened. In fact, the notion of a clinic-based prevention care continuum is widely endorsed by international authorities. Treatment and prevention have become one, thanks to the drastically reduced transmissibility by successful treatment. Its integration with behavioural and other biomedical approaches is only logical and should be the basis of a comprehensive package of prevention delivered in the clinic.

Globally, estimated new HIV infections have actually decreased slightly in the last decade, in tandem with scale up of access to antiretrovirals. This provided the backdrop for the adoption of the Cascade of Care. An absolutely leak-less cascade is probably not realistic but 90-90-90 is. In the pursuit of this goal, reaffirming and implementing all the above mentioned principles by care providers would play an indispensable role.

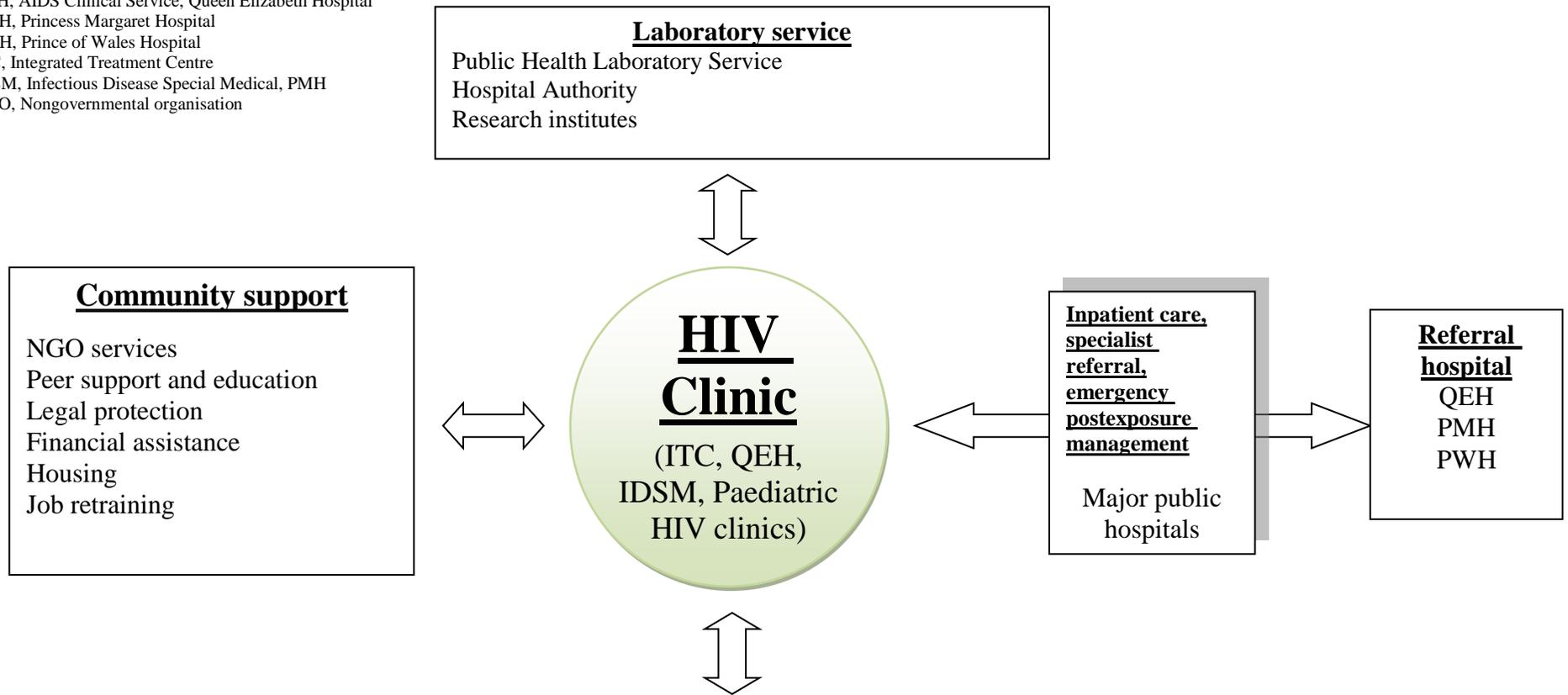
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Diagram. Major players in current schema of HIV care

QEH, AIDS Clinical Service, Queen Elizabeth Hospital
 PMH, Princess Margaret Hospital
 PWH, Prince of Wales Hospital
 ITC, Integrated Treatment Centre
 IDSM, Infectious Disease Special Medical, PMH
 NGO, Nongovernmental organisation

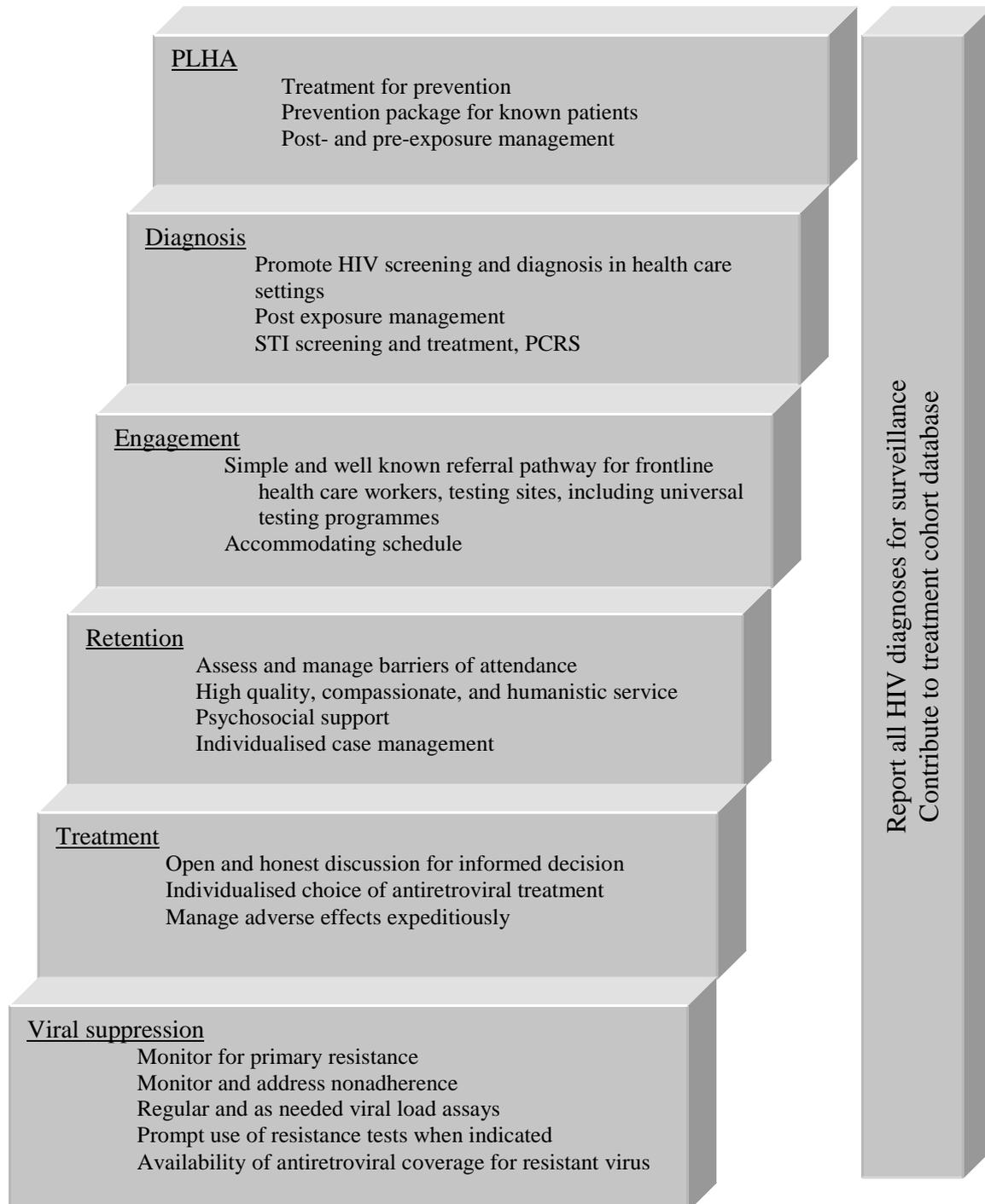


Multi-specialty, multi-disciplinary care team and network

Clinic care team: HIV physician | case manager | counsellor | nurse | social worker

Commonly networked specialists: Dermatologist | Psychiatrist | Neurologist | Haematologist | Oncologist | Hepatologist | Metabolic specialist | Ophthalmologist | Obstetrician – Gynaecologist | Nephrologist

Figure. The Cascade of Care and roles of clinical care providers



Test paper - Recommended principles and practice of HIV clinical care in Hong Kong (Scientific Committee on AIDS and STI (SCAS), Centre for Health Protection, Department of Health)

Expiration Date: 29 August 2017

CME point # / CNE point: 1 / PEM point: 1 (*Healthcare related which contributes to the enhancement of professionalism of midwives/nurses*)

- Please indicate one answer to each question.
- Answer these on the answer sheet and make submission by fax to Special Preventive Programme, Department of Health.

Please contact respective authorities directly for CME/CPD accreditation if it is not on listed below.

Accreditors	CME Point
Department of Health (<i>for practising doctors who are not taking CME programme for specialists</i>)	1
Anaesthesiologists	0
Community Medicine	1
Dental Surgeons	1
Emergency Medicine	1
Family Physicians	1
Obstetricians and Gynaecologists	0
Ophthalmologists	1
Orthopaedic Surgeons	1
Otorhinolaryngologists	pending
Paediatricians	pending
Pathologists	1
Physicians	0
Psychiatrists	1
Radiologists	1
Surgeons	1

1. Which of the following is not true about an effective HIV care approach?
 - (a). The involvement of multi-disciplines and multi-specialties
 - (b). Respecting the rights and confidentiality of the patient
 - (c). Provision of tangible and intangible support services
 - (d). Doctors, nurse counsellors, social worker are often players of a HIV care team
 - (e). None of the above

2. Which of the following is not correct regarding the HIV cascade and its implication?
 - (a). HIV non-suppression at the ultimate level of cascade should be evaluated for the need of prompt resistance testing
 - (b). A big leakage from retention to engagement of care is a concern
 - (c). Antiretroviral treatment is still an individualised choice although universal treatment is recommended for all infected individuals
 - (d). The UNAIDS put forth the target of 3-90s, meaning 90% of infected people be diagnosed, 90% of diagnosed on treatment and 90% of treated were virally suppressed
 - (e). None of the above

3. Which of the following specialty is relatively less commonly engaged in HIV care?
 - (a). Obstetrics and Gynaecology
 - (b). Oncology
 - (c). Psychiatry
 - (d). Ophthalmology
 - (e). None of the above

4. Which of the following is not true regarding prevention in HIV clinic setting?
 - (a). Risk reduction counseling on sex behaviours and drug injecting practices
 - (b). Partner counseling and referral for diagnosis of potentially infected people as early as possible
 - (c). Screening and prompt treatment of sexually transmitted infections
 - (d). Reduce risk of onward transmission via effective antiretroviral treatment
 - (e). None of the above

5. Which of the following is not true concerning the current Hong Kong HIV clinical services in the public sector?
 - (a). Three designated HIV clinics provide life-long care to adult HIV/AIDS patients
 - (b). Most public hospitals are capable of delivering at least basic inpatient HIV care
 - (c). Infectious disease specialist is the major medical specialty delivering patient services
 - (d). Post-exposure management services are not provided by the HIV clinics
 - (e). Fewer paediatric HIV clinics

6. Which of the following is not true about development of HIV field in the last decade or so?
 - (a). Dramatically reduced HIV/AIDS mortality was witnessed, largely a consequence of effective antiretroviral therapy
 - (b). Stronger advocacy of treatment for prevention
 - (c). Expansion of HIV prevention to combination prevention instead of just condom promotion
 - (d). Emergence of non-traditional complications such as liver, bone and liver diseases in infected people
 - (e). None of the above

7. Which of the following is not true about the essential laboratory testings in HIV treatment and care?
 - (a). HIV-1 viral load
 - (b). CD4/CD8 T lymphocyte subset
 - (c). Genotypic resistance test
 - (d). Molecular diagnostics, e.g. hepatitis B and C
 - (e). None of the above

8. Which of the following does not contribute to delivering a good standard of HIV care in Hong Kong?
 - (a). Professional guidelines/recommendations formulated by the Scientific Committee on AIDS and STI
 - (b). Exclusion of private sector for training activities
 - (c). Clinical governance specific to individual service
 - (d). Studies especially applied researches
 - (e). None of the above

9. Which of the following is not important for and beyond HIV clinic services?
- (a). Compulsory disclosure of HIV status to family
 - (b). Patient self and peer support
 - (c). Community and societal acceptance and non-discrimination
 - (d). Clinic transport and outreaching nursing care
 - (e). Reintegration of patient into the mainstream society
10. Which of the following is not part and parcel of the services provision of an HIV clinic in Hong Kong?
- (a). Highly active antiretroviral therapy
 - (b). Linkage to community support and resources
 - (c). Psychosocial counselling and support
 - (d). Public health interventions
 - (e). None of the above