Hospital Authority Convention 2015

Impact of the Changing HIV/AIDS Landscape on Treatment Programmes

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Global & local HIV/AIDS situation

• **Global**
  - In 2012, 35.3 million people living with HIV
  - 2.3 million new infections
  - 260,000 new infections in children
  - 1.6 million AIDS-related deaths

• **Hong Kong (Dec 2014)**
  - HIV (cumulative) 6,993
  - AIDS (cumulative) 1,545
HIV/AIDS service delivery model in HA

• Designated adult treatment centres in QEH & PMH with established service networking
• Pediatric patients are cared in QMH & QEH
HIV/AIDS Service provided in QEH

• Provide multidisciplinary care to HIV/AIDS patients, including acute, rehabilitation and ambulatory service
• Provide counseling and psychosocial support to patients & their families
• Provide in-patient care for Integrated Treatment Center of Department of Health and support CHP in disease surveillance
• Partnership with NGOs for community care
• Post-exposure prophylaxis clinic for HCWs after needle stick injuries & mucosal contacts
• Organize training to HA staffs and conduct research to improve patient care
HIV-1 Lifecycle

Entry

Reverse transcriptase

Viral protease

Integrase
Highly Active Anti-Retroviral Therapy (HAART)

Combination of 3 or more drugs belonging to two or more classes

Treatment Benefits

- Maximal and durable suppression of viral replication
- Restoration of immunologic function
- Reduction of HIV-related morbidity and mortality
- Improvement in quality of life
- Prevent HIV transmission

Not a cure for HIV infection
Survival estimates by time period
Queen Elizabeth Hospital, HKSAR
Risk of death after HIV seroconversion compared with mortality in the general population

Mortality rates for HIV-infected persons have become much closer to general mortality rates since the introduction of HAART

JAMA 2008; 300: 51-59
Treatment efficacy by year of study commencement

Factors associated with higher efficacy: DHHS preferred regimens, low pre-treatment viral load (<100,000 cp/mL), TDF/FTC backbone, INSTI use as 3rd drug

Meta-analysis of 114 studies

Better Treatment
Current issues face by treatment programmes

• Existing service is heavily stretched due to increasing number of active cases

• Evolving patient needs

• Challenge to achieve long-term optimal drug adherence

• “Premature aging” and increased non-communicable diseases (non-AIDS events)

• Late disease presentation is still frequent resulting in poorer treatment outcomes
Rising number of HIV-infected adults aged ≥ 50 – QEH
Increased comorbidities in HIV patients

Non-AIDS co-morbidities

• Cardiovascular diseases
• Cancers (non-AIDS)
• Chronic liver disease
• Chronic kidney disease
• DM
• Neurocognitive disorder
• Osteoporosis

Contributing factors of CVD in HIV patients

• Genetic influences
• HIV infection
• Antiretroviral therapy
• Dyslipidemia, DM, smoking
CD4 cell counts at presentation

Majority of patients were diagnosed at later stages of disease
Strategies to sustain quality HIV care

1. Scale-up HIV treatment programme (manpower, drug cost and laboratory tests) – funding allocation through Resources Allocation Exercise (RAE)

2. Integrated and multi-disciplinary care team approach

3. Primary and secondary disease prevention, regular complications screening

4. Provide service to meet patient needs (sexual and reproductive health counseling, linking mental and substance abuse service, vocational training and life restructuring program, etc.)
5. Support & enhance drug adherence

• Use a multi-disciplinary team approach
• Provide education on medication dosing & potential side effects
• Simplify regimens, dosing, and food requirements
• Monitor drug adherence at every clinic visit
• Educational materials, adherence tools such as pillboxes & alarms
• Use community resources (family & friends, NGO workers and visiting nurses, peer support)
• Nursing case management program
• Therapeutic Adherence Program (TAP)
• Patient empowerment program
Provide education, educational aids & pill boxes to enhance drug adherence
6. Improve programme efficiency & reduce cost

- Designated treatment centers for HIV/AIDS service
- Centralized high-cost and sophisticated laboratory diagnostics
- Task shifting to cope with manpower shortage (accredited nurse clinic; empower supporting staffs)
- Partnership with NGOs to continue rehabilitation and community care
- Applied Lean management to streamline clinic workflow
Streamlining clinic workflow of Special Medical Service

**We Innovate!**

ID: 069 | QEH / Med | Leader: Dr M P Lee | Sponsor: Dr Patrick Li, Ms Amy Tsoi | Facilitator: Dr M P Lee

**“Make a big impact with small changes”**

Lean management was successfully adopted in a specialist out-patient clinic to streamline workflow resulted in shortened waiting time in the clinic and improved patient satisfaction.

**Fig 1.** Total time patient spent in the clinic before and after program implementation

**Fig 2.** Patient’s satisfaction on waiting time before and after program implementation

*Mean of total time (minutes)*

<table>
<thead>
<tr>
<th>Time of data collection</th>
<th>Baseline</th>
<th>Phase 1 (Pilot)</th>
<th>Phase 2 (Full implementation)</th>
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*Percentage, %*

<table>
<thead>
<tr>
<th>Patient satisfaction</th>
<th>Baseline</th>
<th>Phase 2 (Full implementation)</th>
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<tbody>
<tr>
<td>Satisfactory</td>
<td>70%</td>
<td>100%</td>
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<tr>
<td>Acceptable</td>
<td>30%</td>
<td>60%</td>
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<tr>
<td>Unsatisfactory</td>
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<td>10%</td>
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**Standardized clinic workflow**

- Strengthen the role of clerical staff
- Rearrange workflow, avoid job duplication
- Self-completed checklist by patients to enhance communication
- Enable collection of prescription before next visit
- Arrange new blood taking time to cater patient need

**Make a big impact with small changes**

*Lean management was successfully adopted in a specialist out-patient clinic to streamline workflow resulted in shortened waiting time in the clinic and improved patient satisfaction.*
7. Institution-wide holistic care training

- Between 2012 to 2015, 20 HIV holistic care training workshops have been conducted for HA staffs.

- A total of 307 professional staffs (nurses, doctors, pharmacists, PT, OT, MSW, etc) and 279 supporting staffs from 7 clusters were enrolled.
E-Courseware
on Occupational Post-exposure Prophylaxis for HIV Infection and Practical Communication Skills to Enhance Patient-centered Care of HIV Infected Patients

244 HA staffs completed the e-Learning program between Apr 2014 - Apr 2015
HIV Holistic Care Training Initiative - Contributors

HAHO Representatives

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Essential Components of Quality HIV Treatment Programme

- Integrated & multidisciplinary care
- Team building, staff training & development
- Laboratory diagnosis & monitoring
- Psycho-social support
- Sustainability in financial support
- Community care & patient engagement
- Address stigma & discrimination
- Clinical governance & CQI
- Quality & holistic HIV Care
Conclusions

• In the advent of HAART, HIV has been transformed from an inevitably fatal condition into a chronic manageable disease.

• However, current treatment is unable to eradicate HIV and lifelong treatment is required.

• Treatment programmes should be scale-up to meet the increasing service demand, address evolving needs of patients, and sustain quality HIV care.
Thank you!