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FEATURE IN FOCUS

Leprosy (Hansen's disease): a curable condition

Reported by Dr Ho Ching-kong, Senior Medical and Health Officer, Social Hygiene Service, Department of Health

Background

Leprosy, also known as Hansen's disease, has been recognised since ancient times. It is is a chronic infectious disease caused by the bacterium *Mycobacterium leprae* (*M. leprae*) which primarily affects the nerves and skin. The bacteria are transmitted through droplets from the mouth and nose or through wounds on the skin. Of note, leprosy does not spread easily among people. Close contact with an untreated patient over a prolonged period of time (e.g. months to years) is necessary for transmission. The disease does not spread easily through social contact such as shaking hands or sharing meals and is also not transmitted through sexual contact or via the mother to the foetus during pregnancy.

The incubation period varies from one to five years but can be as long as 10 to 20 years. Susceptibility to leprosy is genetically determined, with over 90% of people being naturally immune to leprosy and able to clear the infection without treatment.

Diagnosis of leprosy is based on clinical presentation, skin biopsy, and skin smear. In susceptible individuals, the clinical manifestations of leprosy depend on the cell-mediated immunity (CMI) [1]. Cases with a strong CMI response will be able to suppress *M. leprae*, resulting in milder forms with fewer skin lesions. These forms are known as paucibacillary (PB) leprosy and are of lower infectivity. *M. leprae* bacilli are not seen in the skin smear or skin biopsies of PB leprosy. In contrast, patients with a weak CMI are less able to suppress the infection and develop the multibacillary (MB) forms of leprosy which are of higher infectivity. These cases present with extensive skin lesions and *M. leprae* bacilli are seen on skin biopsy and skin smear. A common feature of all forms of leprosy is the presence of persistent lesions with sensory impairment, and occasional impaired sweating. However, sensory impairment may not be obvious in facial lesions, due to the rich nerve supply in the face.

Nerve damage caused by *M. leprae* results in loss of pain and tactile sensation, leading to deformities from repeated injury or infection from wounds. The disease may cause progressive and permanent disabilities if left untreated. However, if leprosy is treated before the onset of nerve damage, deformities can be prevented. Since 1981, the World Health Organization multi-drug therapy (WHO-MDT), consisting of a course of three antibiotics (dapsone, clofazimine and rifampicin) for at least six months for PB leprosy and for at least 12 months for MB leprosy has been available and is highly effective. The affected persons become non-infectious shortly after starting WHO-MDT. The treatment is now provided in an out-patient setting and the patients are no longer required to be isolated.

Global situation

According to the World Health Organization (WHO), leprosy is found globally in over 120 countries, with over 200 000 new cases reported annually. Most new cases are from South-East Asia. Despite a gradual decline in the number of cases globally, Brazil, India and Indonesia over 10 000 new cases were reported annually between 2018 and 2022. During this period, other countries such as the Nepal, the Philippines, Myanmar, the annual incidence was 1 000 to 10 000.

Epidemiology and current situation in Hong Kong

With improved living conditions and general health of the population, the incidence of leprosy in Hong Kong has declined significantly since the 1960s (Figure 1). Over 200 new cases were recorded each year before 1960s. The annual incidence of reported cases has declined significantly from 3.2 per 100 000 population in 1970 to 0.5 per 100 000 population in 1985. The annual incidence during 1990s ranged between 0.4 and 0.24 per 100 000 population, decreasing to a range of 0.16 to 0.088 per 100 000 population during 2000s. In recent years, leprosy cases are rare in Hong Kong and there have been no paediatric (under 15 years of age) cases since 2001. During 2010 to 2024 (as of August), three to nine adult new cases were reported per year [3].

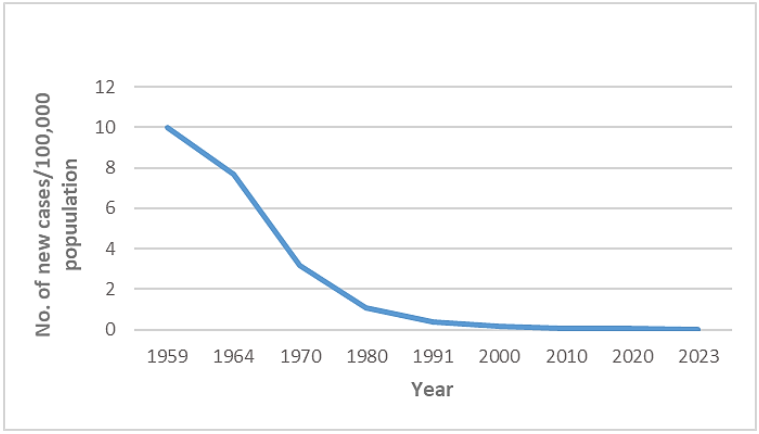

Figure 1 – Annual incidence of leprosy in the public sector in Hong Kong.

Between 2018 and 2023, among the 20 reported cases managed by Social Hygiene Service, the majority were imported cases coming from outside Hong Kong, mainly involving females from Indonesia, the Philippines, Mainland China and Nepal. Their ages ranged from 27 to 86 years (median age: 36 years). As these cases were diagnosed early, deformities were uncommon. The cure rate has been high (>90%) but some of these cases have left Hong Kong before completion of treatment or defaulted. The relapse rate continues to remain low with less than five cases per year.

Prevention

According to the WHO, there is definitive evidence that Bacillus Calmette–Guérin (BCG) vaccination is effective in preventing leprosy, thus aiding the decline in the incidence of the disease. In Hong Kong, as BCG is given at birth with coverage rates approaching 100% all along, the risk of transmission of leprosy in Hong Kong has been reduced to a very low level.

As leprosy is now treatable, with early detection and treatment, deformities can be avoided and the risk of transmission reduced. Early diagnosis is therefore important.

References

[1] Yawalkar SJ. Leprosy for medical practitioners and paramedical workers. Basle, Switzerland 6th ed. Ciba-Geigy Limited; 1994.
[2] World Health Organization 2018. Guidelines for the Diagnosis, Treatment and Prevention of Leprosy.
[3] Centre for Health Protection-Statistics on Communicable Diseases. Available at: https://www.chp.gov.hk.
[4] Ho CK, Lo KK. Epidemiology of leprosy and response to treatment in Hong Kong. Hong Kong Med J 2006; 12:174-9.

2024/25 Seasonal Influenza Vaccination Programmes to start on September 26, 2024

Reported by Programme Management and Vaccination Division of Emergency Response and Programme Management Branch and Vaccine Preventable Disease Section of Communicable Disease Branch, CHP

The 2024/25 Seasonal Influenza Vaccination Programmes, including the Government Vaccination Programme, Vaccination Subsidy Scheme, Seasonal Influenza Vaccination School Outreach Programme and the Residential Care Home Vaccination Programme (RVP), begins on September 26, 2024.

Seasonal influenza vaccination (SIV) is one of the most effective means to prevent seasonal influenza and its complications. All persons aged six months or above, except those with known contraindications, are recommended to receive the SIV for personal protection.

Table 1 – Coverage in 2022/23 and 2023/24 seasons.

Priority group	2022/23	2023/24
Children of age 6 months to under 2 years	9.1%	22.1%
Children of age 2 to under 6 years	45.8%	56.3%
Children of age 6 to under 12 years	60.2%	68.0%
Children of age 12 to under 18 years	19.3%	40.9%
Persons of age 50 to 64 years	17.8%	19.2%
Persons of age 65 years or above	48.3%	51.5%

In the 2023/24 season, about 1 870 000 doses of seasonal influenza vaccines, an increase of about 20 per cent compared with the 2022/23 season, were administered under various programmes. Thanks to the concerted efforts of all stakeholders and parties, the number of doses administered reached a historical high. Vaccination coverage has significantly increased across various priority groups (Table 1). Notably, coverage among community-dwelling elderly individuals has reached about 52%. In contrast, the coverage among young children remains relatively low at 22%, although this represents a doubling compared to the 2022/23 season.

Effectiveness of SIV in 2023/24

The Centre for Health Protection (CHP) of the Department of Health (DH) has been collaborating with private medical practitioners (PMPs) participating in the sentinel surveillance system to estimate the vaccine effectiveness (VE) of the seasonal influenza vaccine at the local primary care setting using the test-negative case-control method. In the 2023/24 influenza season, among 653 respiratory specimens submitted by sentinel PMPs from November 2023 to July 2024, 27.3% were tested positive for influenza viruses. The overall VE among all ages was 60.7% against all influenza viruses, 51.4% against influenza A(H1), and 62.8% against influenza A(H3). The results showed that the 2023/24 seasonal influenza vaccine remained moderately effective against laboratory-confirmed influenza at primary care level.

Seasonal Influenza Vaccination Programmes

Eligible members of the public can receive free or subsidised SIV under the 2024/25 Seasonal Influenza Vaccination Programmes. Eligible persons and the recommended vaccination venues are as follows (Figure 1):

- Persons aged 50 years or above:
  - General persons: Vaccination by family doctors or District Health Centres
  - Persons with chronic illness: Vaccination by public or private clinics providing regular follow-ups
- Persons aged 18 to 49 years who are mentally handicapped/disabled or Comprehensive Social Security Assistance recipients with chronic illness:
  - Vaccination by family doctors or public/private clinics providing regular follow-ups
- Children and adolescents aged two to under 18 years:
  - General children: Vaccination through the Seasonal Influenza Vaccination School Outreach Programme or by family doctors
  - Children with chronic illness: Vaccination by public or private clinics providing regular follow-ups
- Children aged six months to under two years:
  - Vaccination by family doctors or Maternal and Child Health Centres (MCHCs)
- Pregnant women:
  - Vaccination by family doctors, public, or private antenatal clinics

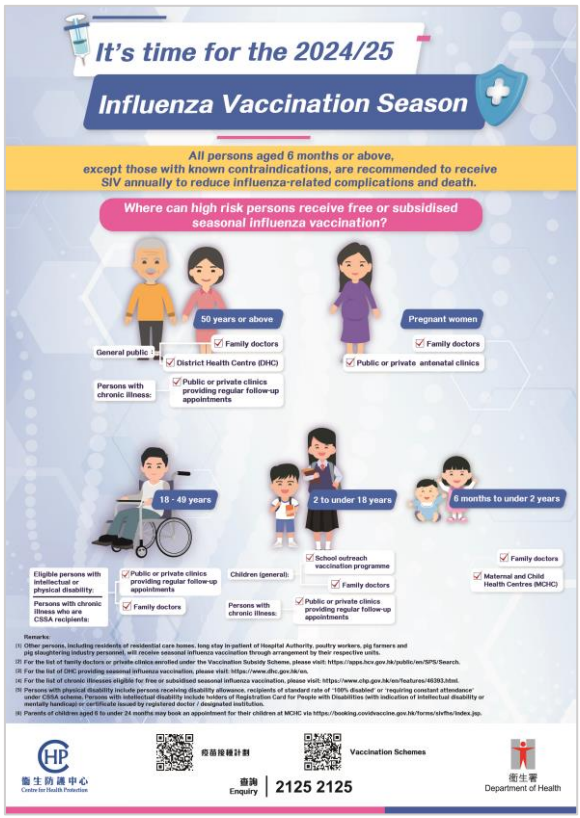

Figure 1 – Poster of 2024/25 Seasonal Influenza Vaccination Programme.

To make vaccinations more accessible this year, the Government will introduce additional vaccination venues, including the DH's MCHCs for all children aged six months to under two years, and District Health Centres/District Health Centre Expresses, providing more choices for the public.

Seasonal Influenza Vaccination School Outreach Programme

Under the Seasonal Influenza Vaccination School Outreach Programme, secondary schools, primary schools, kindergartens, and child-care centres can arrange outreach vaccination teams to provide SIVs to schoolchildren. To improve vaccine coverage among schoolchildren, the DH will implement special arrangements for this season. Kindergartens and child-care centres can choose both injectable inactivated influenza vaccines (IIV) and live attenuated influenza vaccines (LAIV) (i.e., nasal vaccines) for the same or different outreach vaccination activities. In addition, LAIV will be provided to selected primary and secondary schools as a pilot scheme.

Residential Care Home Vaccination Programme

Under the RVP, the DH will deliver vaccines for free to care homes. Visiting medical officers enrolled in the programme are invited by institutions to provide vaccination services to eligible residents. Residents and staff of residential care homes for the elderly and persons with disabilities, non-institutionalised persons with intellectual disabilities (PID) receiving services, staff working in designated institutions serving PID, and residents and staff of residential child-care centres can receive vaccination services from outreach teams starting from September 26.

The Scientific Committee on Vaccine Preventable Diseases (SCVPD) under the CHP of DH has recommended that the composition of vaccines for the 2024/25 influenza season should align with the World Health Organization's latest

recommendations. For the 2024/25 season, both IIVs and LAIV are recommended for use in Hong Kong by the SCVPD. Depending on the brand, most IIVs are recommended for use in people aged 6 months or older, including healthy individuals, pregnant women, and those with chronic medical conditions. LAIV can be used for people aged two to 49 (except those who are pregnant, immunocompromised, or have other contraindications).

More information about the 2024/25 Seasonal Influenza Vaccination Programme can be found in the CHP's Vaccination Schemes webpage: https://www.chp.gov.hk/en/features/17980.html.

NEWS IN BRIEF

Two local sporadic confirmed cases of listeriosis

The Centre for Health Protection (CHP) of the Department of Health (DH) recorded two local sporadic cases of listeriosis on August 20 and September 4, 2024 respectively.

The first case involved a 60-year-old man with good past health residing in Sha Tin. He presented with confusion and fall on August 18 and was admitted to a public hospital on the same day. His cerebrospinal fluid collected on August 19 grew *Listeria monocytogenes*. He was treated with antibiotics and discharged on September 13. He had no travel history during incubation period. There was no known high-risk exposure. His household contact remained asymptomatic.

The second case affected a newborn girl, who was born by caesarean section at a gestational age of 39 weeks and six days. She presented with recurrent apnoea since birth. Her blood collected on August 30 was cultured positive for *Listeria monocytogenes*. The clinical diagnoses included *Listeria monocytogenes* sepsis, meconium aspiration pneumonia and *E. coli* meningitis. She was treated with antibiotics and was in stable condition. Her mother was asymptomatic all along during pregnancy. The mother recalled history of consumption of salad, raw vegetables, and cheese during pregnancy. Her home contacts were asymptomatic.

Two local sporadic cases of psittacosis

The CHP recorded two sporadic cases of psittacosis on August 21 and September 20, 2024 respectively.

The first case involved a 50-year-old male with underlying illnesses residing in Tin Shui Wai. He presented with fever, headache, runny nose, cough with sputum, and shortness of breath since August 5, and was admitted to a public hospital on August 10. Chest X-ray showed consolidation at right lower zone. His sputum collected on August 14 was tested positive for *Chlamydia psittaci* DNA. His condition improved with antibiotic treatment and he was discharged on August 16. He had no travel history during incubation period. He did not keep any birds at home, but reported the presence of pigeons in a park near his workplace.

The second case involved a 71-year-old female with good past health residing in Shatin. She presented with fever and hypoglycemia on September 9, and was admitted to a public hospital on the same day. Chest X-ray showed consolidation at right lower zone. Her sputum collected on September 13 was tested positive for *Chlamydia psittaci* DNA. Her condition improved with antibiotic treatment and was currently in stable condition. She had no travel history during incubation period. She did not keep any birds at home, but reported the presence of pigeons in a carpark near her home.

For both cases, all their home contacts were asymptomatic. No epidemiological linkage with previous cases was identified. Both cases were referred to Agriculture, Fisheries and Conservation Department and Food and Environmental Hygiene Department for necessary follow-up.

Two cases of sporadic Creutzfeldt-Jakob disease

The CHP recorded two probable cases of sporadic Creutzfeldt-Jakob disease (CJD) on August 28 and September 7, 2024 respectively.

The first case involved a 67-year-old man with underlying illnesses residing in Yuen Long. He developed cognitive decline, unsteady gait and lower limb weakness in April 2023, but did not seek medical attention. He was admitted to a public hospital for presyncope on May 11, 2024. Findings of magnetic resonance imaging of the brain and electroencephalogram (EEG) conducted in August 2024 were compatible with CJD. He remained stable and was discharged.

The second case involved a 66-year-old woman with underlying illnesses residing in Tuen Mun. She presented with rapid cognitive decline, unsteady gait and slurred speech in July 2024. Her condition deteriorated and was admitted to a public hospital on August 5, 2024. She was also found to have myoclonus and akinetic mutism. EEG showed features compatible

with CJD. She remained stable in hospital.

Both patients had no known family history of CJD. No risk factors for iatrogenic or variant CJD were identified. They were classified as probable cases of sporadic CJD. His household contact remained asymptomatic.

Joint meeting of senior health officials of Mainland, Hong Kong and Macao held in Hong Kong on August 29, 2024

The Director of Health, Dr Ronald Lam, joined the delegation led by the Secretary for Health, Professor Lo Chung-mau, to attend the 19th Joint Meeting of Senior Health Officials of the Mainland, Hong Kong and Macao hosted by the National Health Commission in Dunhuang, Gansu Province on August 29, 2024. The Joint Meeting has long been a platform for senior medical and health officials as well as experts from the Mainland, Hong Kong and Macao to exchange views, share experiences and enhance co-operation on medical and public health issues. In this meeting, members of the three delegations engaged in sharing and some discussions over major public health topics including the review of the COVID-19 epidemic and the way forward for prevention and control of infectious diseases.

Photo – Joint meeting of senior health officials of Mainland, Hong Kong and Macao held in Gansu.

A new milestone in partnership with Singapore to bolster public health protection

The Director of Health, Dr Ronald Lam, led a delegation from the CHP of the DH to visit the public health authorities of Singapore in late August 2024. During the visit, CHP signed a Memorandum of Understanding (MOU) on collaboration on prevention and control of communicable diseases with the interim Communicable Diseases Agency of Singapore.

Photo – The Director of Health, Dr Ronald Lam (fifth left), led a delegation from CHP to visit the health authorities of Singapore.

The MOU provides a solid foundation for strengthening collaboration between Hong Kong and Singapore in areas of mutual interest concerning communicable diseases, which includes further enhancing communicable diseases information exchanges and experience sharing within the regions. The delegation also conducted work exchanges with the Ministry of Health of Singapore, and also visited the National Centre for Infectious Diseases, National Environment Agency and Health Promotion Board to reinforce mutual ties and strengthen exchanges and cooperation on public health between the two places.

Vice-minister of the National Health Commission and the Director of the National Disease Control and Prevention Administration, Mr Wang Hesheng visited the Department of Health of HKSAR

Mr WANG Hesheng, Vice Minister of the National Health Commission and Director of the National Disease Control and Prevention Administration (NDCPA), led a delegation to visit Hong Kong from September 2 to 3, 2024. During the visit, Director Wang had a meeting with Prof Lo Chung-mau, the Secretary for Health, and Ms Ao Ieong U, the Secretary for Social Affairs and Culture of the Macao Special Administrative Region. They also signed the "Co-operation Agreement on Response Mechanism for Public Health Emergencies caused by Infectious Disease". The three parties agreed to further strengthen co-operation and communication in tackling significant public health emergencies caused by infectious diseases, covering areas such as: the notification of information regarding infectious diseases; co-ordination of efforts in emergency responses; technical issues, training and scientific research on public health emergency responses to infectious diseases. Director of Health and other senior officials met with the delegation on September 3, 2024. They had in-depth exchanges on various areas including the strengthening of collaboration between the Mainland and Hong Kong on joint prevention and control of communicable diseases in particular with regard to the Greater Bay Area, and the application of innovative technology.

Photo – Director of Health and other senior officials met with the delegation from the NDCPA led by Director Wang Hesheng on September 3, 2024.

Infectious Disease and Infection Control Forum: Invasive Group A Streptococcus (GAS) Infection and Streptococcal Toxic Shock Syndrome (STSS)

The Infection Control Branch (ICB) of the CHP and Infectious Diseases Control Training Centre (IDCTC) of the Hospital Authority (HA) jointly organised an infectious disease and infection control forum on invasive GAS Infection and STSS on August 21, 2024.

An increase in STSS cases has been observed since 2023 in Japan. In addition, there has been a rise in invasive GAS disease and scarlet fever in selected European countries. The forum aimed to inform healthcare professionals about the current situation, review on clinical management and infection control regarding invasive GAS infection and STSS.

The forum was attended by over 500 healthcare professionals from across public and private sectors, either in person or through a Zoom webinar. The event was highly regarded and well-received. The materials from the forum can be accessed on the IDCTC training portal at https://icidportal.ha.org.hk/Trainings/View/188.

Photo – From left to right: Dr Leo LUI, Associate Consultant, CHP ICB; Dr Dawin LO, Senior Medical Officer, CHP CDB; Dr Hong CHEN, Head, CHP ICB; Dr Daphne LAU, Associate Consultant, PMH; Dr Jacky CHAN, Consultant, HA IDC joined the Forum on Invasive GAS infection and STSS on August 21 2024.