



14th SINGAPORE PUBLIC HEALTH & OCCUPATIONAL MEDICINE CONFERENCE

15-16 October 2019 · Equarius Hotel

PREVENTIVE HEALTH IN A CHANGING WORLD

SURVEILLANCE OF ACUTE FLACCID PARALYSIS IN SINGAPORE, 2014-18

Yan'an Hou, Constance Low, Guan Hao Chan, Pei Pei Chan, Xinyi Peh, Cui Qin Poh, Rachael Pung, Peng Lim Ooi

Corresponding author:

Ms Yan'an Hou

Communicable Diseases Division, Ministry of Health, Singapore
College of Medicine Building, 16 College Road, Singapore 169854

Background:

Singapore has an established Acute Flaccid Paralysis (AFP) surveillance programme to detect all possible polio cases, in line with WHO's strategy to monitor the progress of polio eradication. This led up to Singapore's attainment of polio eradication in 2000. We describe herein the epidemiological pattern of cases reported in our programme over a five-year period from 2014-18.

Methods:

The comprehensive surveillance system at Ministry of Health receives notifications of AFP cases from all public acute care hospitals as well as paediatricians, internal medicine specialists and neurologists in private practice. Stool samples are sent for testing at the Department of Pathology Virology Section laboratory, which serves as WHO's designated National Polio Laboratory. Data from detailed investigations into each notified case were carefully collated for epidemiological analyses.

Results:

A total of 43 reported cases met the WHO definition for AFP. Median age of the cases was 7.5 years (range, 1-15) and the male to female ratio was 1.7. Nineteen (44%) reported fever as a prodromal symptom during clinical presentation. No wild or vaccine-derived strain of poliovirus was isolated. The most commonly reported working diagnosis was Guillain-Barre syndrome (n=12, 28%) followed by transverse myelitis (n=9, 21%). Two cases were reported with residual paralysis 60 days following onset of symptoms but the cause was undetermined.

Conclusion:

Our findings highlighted the importance of high vaccination coverage, effective surveillance, and good environmental hygiene and sanitation. The surveillance programme continues to be Singapore's core strategy in the early identification of imported polio case and the prompt institution of control measures.