

Outbreak of COVID-19 in Thailand: Time Serial Analysis on Imported and Local Transmission Cases

Dear Editor,

COVID-19 is an important new emerging infection. After it appears first in China,^[1] Thailand is the second country where outbreak occurred.^[2] The first “zero” patient in Thailand is an imported Chinese patient identified at January 2020. There are continuums of COVID-19 cases in Thailand. Both imported and local transmission cases still newly occur despite several attempts for disease control and prevention. For successful prevention of expansion of disease, the knowledge on nature of disease progression in each setting is needed for proper management planning. Here, the authors perform a time serial analysis on imported and local transmission cases of COVID-19 in Thailand. Until February 29, 2020, there are already 42 accumulated cases of COVID-19 in Thailand (34 imported and 8 local transmission cases). The ratio between local transmission and importation is equal to 1:4.25. Figure 1 shows time serial of imported and local transmission cases. The velocity rate of disease progression in imported and local transmission cases are equal to 0.71 and 0.26/day, respectively. The acceleration rate of disease progression in imported and local transmission cases are equal to 0.015 and 0.008/day², respectively. Therefore, the importation contributes faster and more cases of COVID-19 than local

transmission. Preventive measures in the study setting seem to be more effective in controlling of local transmission.

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Conflicts of interest

There are no conflicts of interest.

Beuy Joob¹, Viroj Wiwanitkit^{2,3}

¹Sanitation Medical Academic Center, Bangkok, Thailand, ²Honorary Professor, Dr DY Patil University, Pune, Maharashtra, India, ³Visiting Professor, Hainan Medical University, Haikou, China

Address for correspondence:

Dr. Beuy Joob,

Sanitation 1 Medical Academic Center, Bangkok, Thailand.

E-mail: beuyjoob@hotmail.com

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References

1. Hsia W. Emerging new coronavirus infection in Wuhan, China: Situation in early 2020. *Case Study Case Rep* 2020;10:8-9.
2. Yasri S, Wiwanitkit V. Editorial: Wuhan coronavirus outbreak and imported case. *Adv Trop Med Pub Health Int* 2020;10:1-2.

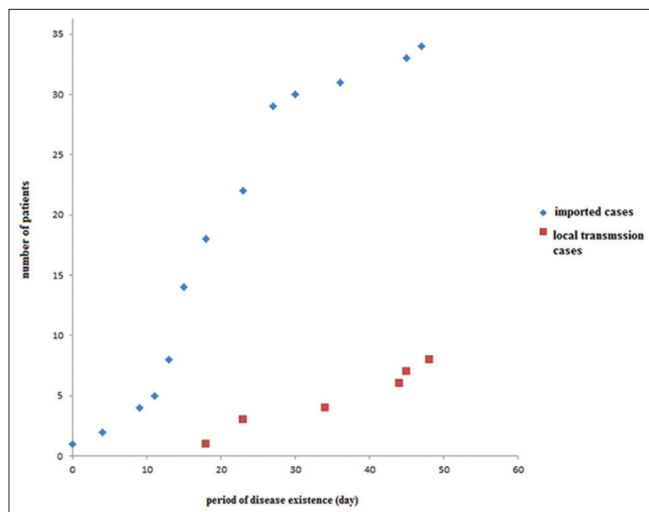


Figure 1: Time serial of imported and local transmission cases

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