

### Epidemic Status and Risk Assessment of Severe Fever with Thrombocytopenia Syndrome in Taiwan

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#### Abstract

Severe fever with thrombocytopenia syndrome (SFTS) is an emerging acute infectious disease. The SFTS virus (SFTSV) was first isolated from a case in Henan province, China, 2009. The epidemic countries were mainly China, Japan, and South Korea which lie close to Taiwan. Many hard tick species distributed in Taiwan could be SFTSV transmission vectors. The virus has been detected in domestic cattle and sheep, as well as their external parasites, *Rhipicephalus microplus*. SFTSV antibodies had also been detected in sheep. Moreover, we identified the first confirmed autochthonous case on November 4, 2019, and the virus strain is similar to those in Japan and South Korea. Based on the above, to realize the domestic epidemic risk and strategies for prevention and control, it is urgent to assess the impact of SFTS in Taiwan. We referred to the international risk assessment framework and collected information such as the risk of infection among compatriots, the possibility of a domestic epidemic, disease severity, and prevention and treatment strategies. The results showed that the risk of imported cases and epidemics in communities was low, but the risk of imported infected animals was possible. Even vectors could enter Taiwan through migratory birds. In addition, the fatality rate of SFTS was about 6–30%, which could pose a health impact on people. The comprehensive assessment determined that the risk of SFTS in the domestic epidemic was moderate. To protect the people, SFTS had been listed as Category IV Notifiable Infectious Diseases since April 15, 2020, and we would continue active surveillance and strengthen the monitoring of economic animals, wild animals, and

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vectors in high-risk areas. We also would improve the cognition and alertness of compatriots and medical institutions and implement measures such as protection and isolation during bleeding and intubation to avoid contagious infection. Such strategies could reduce the risk and impact of the domestic epidemic.

**Keywords:** SFTS, *Rhipicephalus microplus*, the first confirmed autochthonous case, risk assessment