

Post Exposure Management of Clinical Scabies and Varicella in a COVID-19 Community Care Facility (CCF) in Singapore

Sheila Lim¹, Zhang Wei¹, Wang Yang¹, Ray Lin Junhao^{1,2,3} and Kalisvar Marimuthu^{1,3,4,5}

- ¹ Infection Prevention and Control Office, Woodlands Health, Singapore
- ² Department of Infectious Diseases, Woodlands Health, Singapore
- ³ National Centre for Infectious Diseases, Singapore
- ⁴ Department of Infectious Diseases, Tan Tock Seng Hospital, Singapore
- ⁵ Yong Loo Lin School of Medicine, National University of Singapore, Singapore



Picture 1: Overview of EXPO as CCF

ISSUE

In the early days of COVID-19 pandemic, Singapore converted a large international exhibition center named EXPO to a CCF (Refer to Picture 1 for the overview of EXPO as CCF) with 8000 beds capacity to provide isolation and medical care for recovering COVID-19 patients. More than 320,000 migrant workers were managed in this facility by Woodlands Health (WH) with the support of healthcare and non-healthcare workers from multiple agencies. Besides the COVID-19 threat, Varicella and Clinical Scabies were also identified among the residents, given the shared living environment - shower and toilet facilities, with recirculating mechanical ventilation system in the facility. Once an infectious case was identified in the facility, WH Infection Prevention and Control (IPC) team would be notified immediately to conduct active post-exposure management accordingly. The infectious case would be transferred to the hospital for acute treatment as soon as possible.

PROJECT

When a Varicella exposure was identified, WH IPC team conducted risk assessment and initiated post-exposure management (Refer to Figure 1) for over 500 residents who lived in the same hall with the confirmed index case. As they were mainly healthy migrant workers with unknown Varicella immunity status, the decision was made to offer Varicella vaccinations for all exposed residents. Post-exposure, they were monitored closely for up to 21 days in CCF EXPO or given a memo with monitoring advice if discharged before the end of the incubation period.

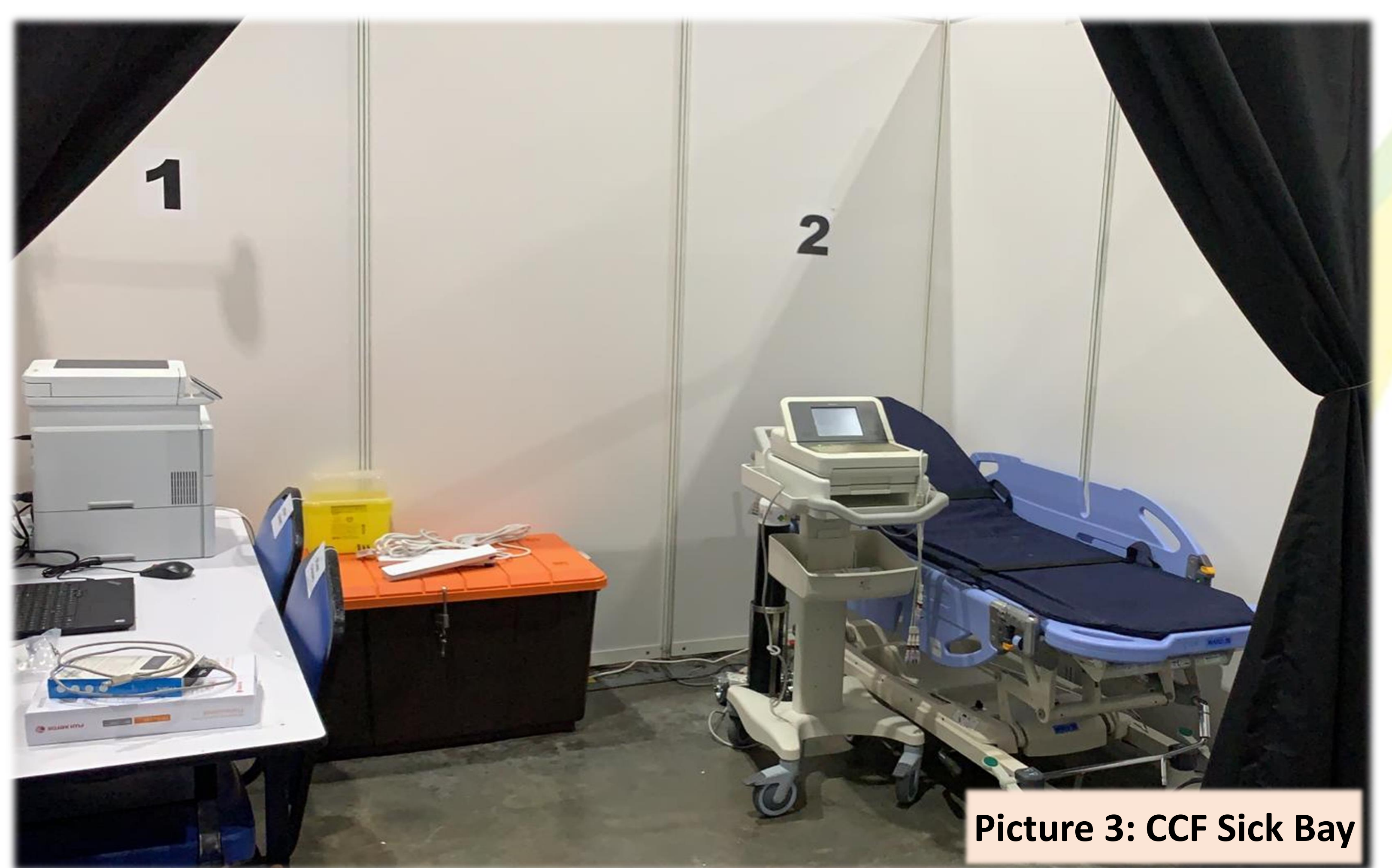
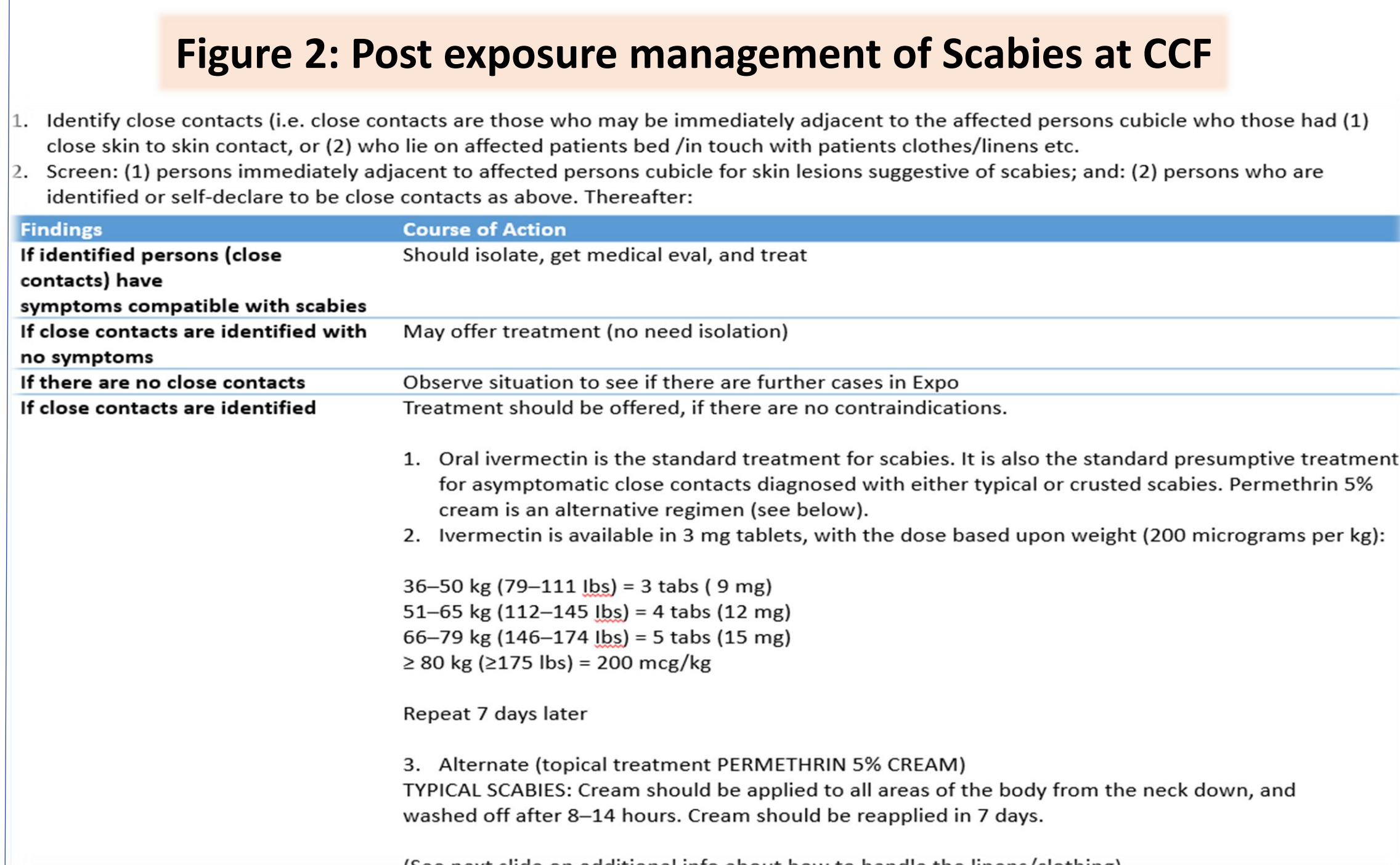
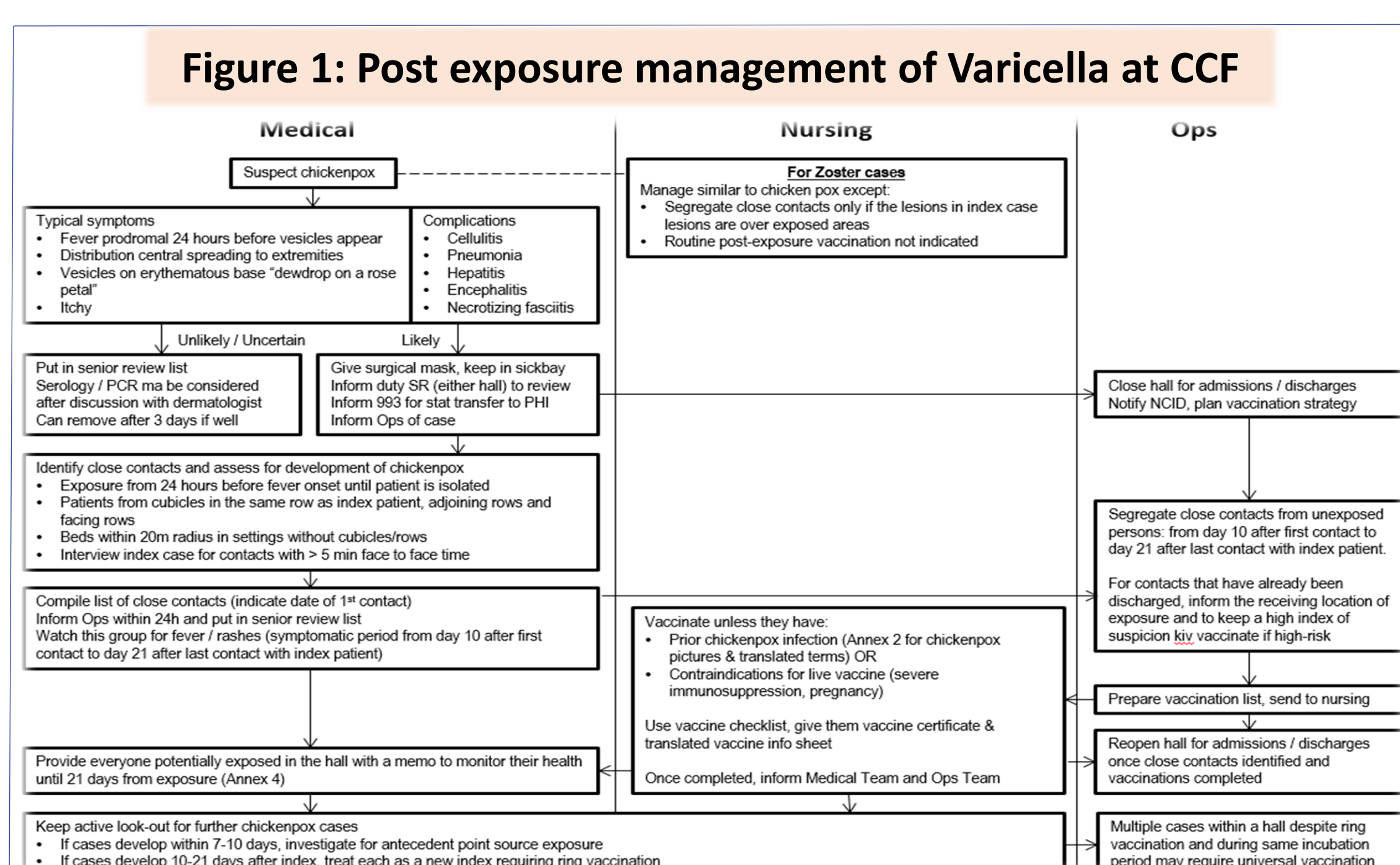
When a Clinical Scabies case was identified, WH IPC team initiated contact tracing and post-exposure management (Refer to Figure 2) swiftly. Contact tracing included all residents sharing the same cubicle (Refer to Picture 2 & 3 for the sharing cubicle and sick bay cubicle) as the confirmed case. Besides screening identified close contacts for any early signs and symptoms, post-exposure prophylaxis with Malathion was offered to all close contacts. Linens were changed after treatment and terminal cleaning were done for the affected cubicles. During this period, IPC team stepped up on their rounds to audit and reinforce on staff compliance with IPC measures, including hand rubbing and changing gloves in-between patients, cleaning of shared equipment and environment. All this helped to identify the gaps in IPC practices and allow active reinforcement to staff providing direct care to the affected residents.



Picture 2: Display of cubicle with 2 beds that house 2 COVID-19 patients

RESULTS

During the 7-months operation in CCF EXPO, 1 Varicella with approximately 500 contacts and 7 Clinical Scabies cases with 8 contacts were identified episodically and managed safely. Hence, there was no secondary transmission. Despite the challenges posed by the improvised facility, the post-exposure management and control measures successfully prevented onward transmission of Varicella and Clinical Scabies in CCF EXPO. Implementing and ensuring strict compliance to IPC measures among multiple agencies involving many non-healthcare workers was extremely challenging but crucial to prevent the spread of Infectious Diseases.



Picture 3: CCF Sick Bay