No One Left Out: A Case Study of Scabies Outbreak Involving Vulnerable Group At a Welfare Home in Batang Padang District, Perak, Malaysia

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ABSTRACT:

Introduction: Scabies is a known parasitic skin infection that causes significant public health burden in dormitory settings due to potential fast spread among the same residential contacts. While most infectious diseases were much less reported during the two years pandemic duration from early 2020 to end of year 2021, there was an incidence of a scabies outbreak involving a welfare home at Bidor in Batang Padang district. This case study aims to describe the outbreak investigation and response, with the risk factors for the outbreak happened in this setting.

Methods: A field investigation was carried out in December 2021 following the notification of one case of suspected Norwegian scabies from the welfare home, a form of severe scabies that possibly infected people with immunocompromised health status. The methods included conducting a prompt active case detection, environmental assessment and entomological investigation including clinical and environmental sample analysis. All data was analyzed by using IBM SPSS Software v.26 for both descriptive and exploratory analysis. The outcomes were further communicated with respective authorities for further actions.

Results: Among the total of 65 residents of adult age groups (mean age 55.2 years with SD 14.1) with mostly deprived sociodemographic background at the welfare home, there were 34 residents infected with scabies with an attack rate of 52.3%. Although male residents were more than female, however 90% female residents were significantly infected (OR: 8.21, 95% CI: 2.07,32.53) compared to its counterpart. At least two-thirds of the residents have at least one co-morbidity. The findings were related significantly to their room allocation, in which the index case was placed in the similar room with the other 13 female cases (OR:18.57, 95% CI: 2.25, 153.03). Other cases were infected through contacts during common activities. The indoor air quality was compromised due to ongoing renovation of the facility at that time, causing overcrowded spaces. Clinical and environmental samples confirmed the presence of Sarcoptes scabiei , hence confirming the plausibility of the epidemiology triad of scabies outbreak at the welfare home. The outbreak lasted for five weeks due to the index case with Norwegian scabies took the longest duration to heal despite extensive clinical case management and environmental control involving multiple agencies.

Conclusion: The incident of scabies outbreak involving vulnerable people should not be taken lightly even though scabies is always thought to be an "easy" skin infection to treat. In the case of people with deprived sociodemographic background such as history of vagabond or being abandoned with multiple comorbidity, the "simple scabies" would become extensive enough to cause large institutional outbreak, hence the need to strengthen health services to reach them is needed.

KEYWORDS: Norwegian scabies, vulnerable people, welfare home, outbreak control