

Management of antibiotic-resistant typhoid fever outbreak in Kelantan detention centres

Nik Mohd Hafiz Mohd Fuzi

Communicable Disease Control Unit, Disease Control Branch, Kelantan State Health Department, Kelantan

SUMMARY

Typhoid fever is indeed a significant public health concern in many parts of the world, particularly in developing countries with inadequate sanitation and limited access to clean water. Typhoid fever is caused by the bacterium *Salmonella Typhi* which is primarily transmitted through the consumption of contaminated food and water, and it can spread through person-to-person contact. The disease is characterized by symptoms such as high fever, headache, abdominal pain, and gastrointestinal disturbances. The overall incidence rate of typhoid fever in Malaysia has been decreasing since 2005, although typhoid fever remains endemic in certain areas, particularly in Kelantan. However, antibiotic-resistant typhoid cases were uncommon in the region. On 17th August 2022, there was an outbreak of typhoid fever among inmates in three detention centres located in Kelantan. Various agencies led by Kelantan Health State Department have worked together in identifying the source and implementing measures to prevent its further spread and control the outbreak. The earliest cases involved foreign inmates before it spread to local inmates which total up to 27 cases. It was found that all the typhoid strains isolated from these cases were resistant to Ciprofloxacin, a commonly used antibiotic. The most probable source of the outbreak was chronic typhoid carriers among the immigrants who were detained in the same cell. The spread of the disease was facilitated by overcrowding and unsanitary practices in the detention centres. Various challenges were faced during the investigation, including difficulties in tracking the movement of inmates between detention centres due to inadequate documentation. Language barriers also posed obstacles in conducting case investigations and providing health education. Several measures were implemented to contain the outbreak, such as mass screening of inmates and food handlers, contact tracing, continuous active case detection, decontamination of affected cells and dormitories, restrictions on inmate transfers, isolation of exposed and symptomatic inmates, vaccination of the contacts and the development of multi-language health education materials to promote better personal hygiene among inmates. With the collaboration and cooperation of multiple agencies including the prison department, immigration and police, these measures successfully brought the outbreak under control. It was officially declared over on 18th November 2022. Considering the high number of immigrants in Malaysia and the potential for future outbreaks, an interim guideline for managing enteric fever outbreaks in prisons and other detention facilities was developed to enhance preparedness and response in the future.

SY02

Clinical presentation and management for cases in antibiotic resistant typhoid fever outbreak in Kelantan detention centres

Anilawati Mat Jelani

Medical Department, Hospital Raja Perempuan Zainab II, Kota Bharu Kelantan

SUMMARY

Typhoid fever is transmitted through the faecal-oral route. Risks of contracting Typhoid include staying in closed institutions such as squatter housing areas, detention centres or prison where there are risks of poor sanitation and lack of safe drinking water. This review illustrates several challenges in clinical management of typhoid fever in three prisons located at the Northeast of Peninsular Malaysia, Kelantan involving a number of immigrants mainly Burmese. The challenges faced were in the aspect of antibiotic management, finding a carrier in the attempt to end the outbreak and developing the first interim guideline to suit the local setting of prisons in Kelantan.