## Accepted Manuscript

Title: High Prevalence of Ceftriaxone Resistance among Invasive *Salmonella enterica* Serotype Choleraesuis Isolates in Thailand: The Emergence and Increase of CTX-M-55 in Ciprofloxacin-Resistant *S.* Choleraesuis Isolates

Authors: Sirirat Luk-in, Tanittha Chatsuwan, Chaiwat Pulsrikarn, Aroon Bangtrakulnonth, Ubolrat Rirerm, Wanla Kulwichit

PII: S1438-4221(17)30574-X

DOI: https://doi.org/10.1016/j.ijmm.2018.03.008

Reference: IJMM 51222

To appear in:

Received date: 20-11-2017 Revised date: 19-3-2018 Accepted date: 21-3-2018

Please cite this article as: Luk-in S, Chatsuwan T, Pulsrikarn C, Bangtrakulnonth A, Rirerm U, Kulwichit W, High Prevalence of Ceftriaxone Resistance among Invasive *Salmonella enterica* Serotype Choleraesuis Isolates in Thailand: The Emergence and Increase of CTX-M-55 in Ciprofloxacin-Resistant *S.* Choleraesuis Isolates, *International Journal of Medical Microbiology* (2010), https://doi.org/10.1016/j.ijmm.2018.03.008

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



High Prevalence of Ceftriaxone Resistance among Invasive Salmonella enterica Serotype Choleraesuis Isolates in Thailand: The Emergence and Increase of CTX-M-55 in Ciprofloxacin-Resistant S. Choleraesuis Isolates

Sirirat Luk-in<sup>a, b</sup>, Tanittha Chatsuwan<sup>b, \*</sup>, Chaiwat Pulsrikarn<sup>c</sup>, Aroon Bangtrakulnonth<sup>c</sup>,

Ubolrat Rirerm<sup>b</sup>, Wanla Kulwichit<sup>d</sup>

<sup>a</sup> Medical Microbiology Interdisciplinary Program, Graduate School, Chulalongkorn University, Bangkok, Thailand

<sup>b</sup> Department of Microbiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

<sup>c</sup> Salmonella and Shigella Center, National Institute of Health, Department of Medical Sciences, Nonthaburi,
Thailand

<sup>d</sup> Department of Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

\* Corresponding author. Department of Microbiology, Faculty of Medicine, Chulalongkorn University, Rama IV Road, Bangkok 10330, Thailand; Tel: +66-2-256-4132; Fax: +66-2-252-5952.

E-mail: Tanittha.C@chula.ac.th (T. Chatsuwan).

S. Choleraesuis is a highly invasive zoonotic pathogen that causes a serious systemic infection in humans. The emergence and increase of resistance to ceftriaxone and ciprofloxacin among S. Choleraesuis has become a serious therapeutic problem. The present study demonstrated high frequency of antimicrobial resistance in Salmonella Choleraesuis among 414 nontyphoidal Salmonella isolates from bacteremic patients in Thailand. High rates of ceftriaxone (58.3%) and ciprofloxacin (19.6%) resistances were observed in S. Choleraesuis isolates. The dissemination of the self-transferable  $bla_{\text{CTX-M-14}}$ -carrying IncFIIs, IncFII, and IncI1 plasmids and  $bla_{\text{CMY-2}}$ -carrying IncA/C plasmid along with the clonal spread of  $bla_{\text{CMY-2}}$ -harbouring S. Choleraesuis isolates contributed to the high frequency of resistance to extended-spectrum cephalosporins (ESCs; third- and fourth-generation cephalosporins)

## Download English Version:

## https://daneshyari.com/en/article/8384851

Download Persian Version:

https://daneshyari.com/article/8384851

<u>Daneshyari.com</u>