

## A NATIONWIDE SURVEY ON MALAYSIAN HOSPITAL PHYSICIANS' PRACTICES OF INTRAVENOUS POTASSIUM CHLORIDE SUPPLEMENTATION AND OPINIONS ON PREMIXED FORMULATION IN THE TREATMENT OF HYPOKALAEMIA

## CHEE PING CHONG<sup>1\*</sup> AND MELISSA MOHAMMAD HIRMAN<sup>1,2</sup>

<sup>1</sup>Discipline of Clinical Pharmacy, School of Pharmaceutical Sciences, Universiti Sains Malaysia, Pulau Pinang, Malaysia <sup>2</sup>Normah Medical Specialist Centre, Jalan Tun Abdul Rahman Yaakub, Petra Jaya, Kuching, Sarawak, Malaysia

## Published online: 25 May 2023

**To cite this article:** CHONG, C. P. & MOHAMMAD HIRMAN, M. (2023) A nationwide survey on Malaysian hospital physicians' practices of intravenous potassium chloride supplementation and opinions on premixed formulation in the treatment of hypokalaemia, *Malaysian Journal of Pharmaceutical Sciences*, 21(1): 91–106, https://doi.org/10.21315/ mjps2023.21.1.6

To link to this article: https://doi.org/10.21315/ mjps2023.21.1.6

## ABSTRACT

This study aims to evaluate the Malaysian hospital physicians' practices of intravenous potassium chloride in the treatment of hypokalaemia and their opinions on using premixed formulation. This was a nationwide online survey using a self-administered questionnaire. The survey link was sent to the practising hospital physicians in Malaysia through email (n = 1,455), Facebook Messenger (n = 2,734) and posted on Facebook as well. A total of 207 responses were received. The physicians were mostly males (63.8%), aged between 30 years old–39 years old (51.2%) and worked in the government sectors (76.8%). The most preferred dosage of potassium chloride for mild, moderate and severe hypokalaemia was 10 mmol (44.4%), 20 mmol (55.1%) and 30 mmol (37.7%), respectively. The mostly chosen infusion rate of potassium chloride for mild hypokalaemia was over 24 h (41.1%) while for both moderate and severe hypokalaemia were over 1 h-2h (63.8% and 89.9%, respectively). The concentration of intravenous potassium chloride is the main factor (68.1%) which would influence the infusion route choice. Serum potassium monitoring of every 24 h was chosen by 52.7% of the respondents for mild hypokalaemia while every 1 h–2 h was mostly chosen for moderate and severe hypokalaemia (49.3% and 87.4%, respectively). Cardiac monitoring was mostly opted in severe hypokalaemic patients (70.0%). Majority of physicians agreed that a premixed formulation is easier to administer (64.7%) and safer for the patients (51.7%). In conclusion, there were variations in the prescribing practices among Malaysian physicians to treat hypokalaemia. Most physicians were in favour of premixed formulation.

*Keywords:* Potassium chloride injection, Hypokalaemia, Premixed formulation, Hospital physicians, Malaysia

© Penerbit Universiti Sains Malaysia, 2023. This work is licensed under the terms of the Creative Commons Attribution (CC BY) (http://creativecommons.org/licenses/by/4.0/).

<sup>\*</sup>Corresponding author: jjueping@gmail.com