## MERS-COV, SURGICAL MASK AND N95 RESPIRATORS

Singapore Med J 2014; 55(9): 507 doi: 10.11622/smedj.2014124

Dear Sir,

The recent article, "Debate on MERS-CoV respiratory precautions: surgical mask or N95 respirators?" by Chung et al<sup>(1)</sup> is an interesting read. Indeed, the control of this new emerging infection is a topic that is currently under discussion worldwide, <sup>(2)</sup> and the efficacy of the respiratory protective apparatus is certainly an important issue. These were, in fact, similar considerations in previous emerging atypical influenza infections.

An important property of the respiratory protective apparatus is its structure.<sup>(3)</sup> As previously noted by Wiwanitkit,<sup>(3)</sup> the pore size of the protective apparatus is the main component that allows or prohibits the passage of pathogen. Since the coronavirus is an extremely small virus, it can pass through the pores of both the surgical mask and N95 respirator. Hence, considering the nanostructure of the protective apparatuses, there should not be any difference in their protective activity. In addition, contamination of the respiratory protective apparatus after use is another issue that needs to be addressed. Although the apparatus has a good structure that can prevent the passage of pathogen, if it is contaminated and reused, it will become the source of infection instead.<sup>(4)</sup>

Yours sincerely,

Viroj Wiwanitkit

Wiwanitkit House, Bangkhae, Bangkok 10160, Thailand. wviroj@yahoo.com

## REFERENCES

- 1. Chung SJ, Ling ML, Seto WH, Ang BS, Tambyah PA. Debate on MERS-CoV respiratory precautions: surgical mask or N95 respirators? Singapore Med J 2014; 55:294-7.
- 2. Wiwanitkit V. Novel Middle East respiratory syndrome coronavirus. J Formos Med Assoc 2014; 113:65.
- 3. Wiwanitkit V. N-95 face mask for prevention of bird flu virus: an appraisal of nanostructure and implication for infectious control. Lung 2006; 184:373-4.
- 4. Wiwanitkit V. Face mask decontamination and reuse: is it ok? Am J Infect Control 2011; 39:615.