

# THE LANCET

## Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Cho SY, Kang J-M, Ha YE, et al. MERS-CoV outbreak following a single patient exposure in an emergency room in South Korea: an epidemiological outbreak study. *Lancet* 2016; published online July 8. [http://dx.doi.org/10.1016/S0140-6736\(16\)30623-7](http://dx.doi.org/10.1016/S0140-6736(16)30623-7).

## Supplementary appendix

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### **Details on ER overcrowding index**

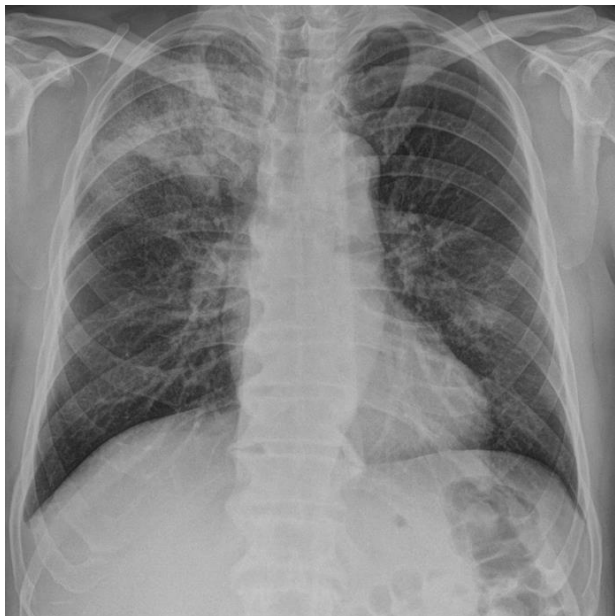
The Republic of Korea's Ministry of Health and Welfare has performed yearly evaluation on crowdedness in each ER in Korea using the index below.<sup>1</sup> The index is calculated by following formula [Korean emergency room overcrowding index (%) = Sum of length of stay in ER of each patient for 365 days/ (number of ER bed)\*365 days \*24 hours]. The index of 100 % means the average percent of beds occupied during the given time period is 100. In 2014, the index of SMC ER was 133.2 and SMC ranked fourth busiest ER in the nation.

### Reference

1. [http://www.mohw.go.kr/front\\_new/al/sal0301vw.jsp?PAR\\_MENU\\_ID=04&MENU\\_ID=0403&page=2&CONT\\_SEQ=330291](http://www.mohw.go.kr/front_new/al/sal0301vw.jsp?PAR_MENU_ID=04&MENU_ID=0403&page=2&CONT_SEQ=330291)

**Supplemental Figure 1: Chest radiography of Patient 1**

May 17

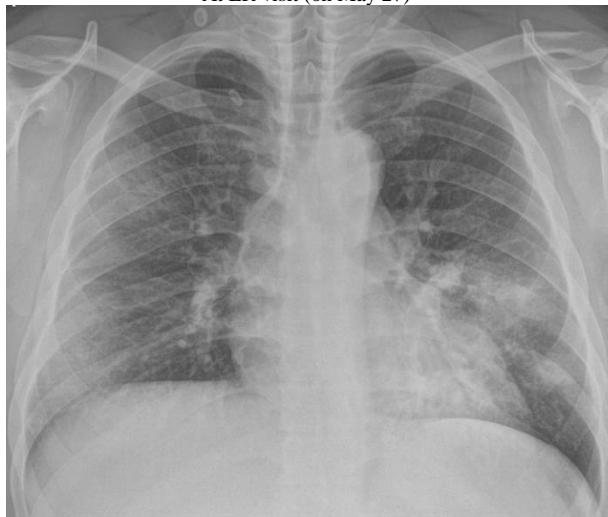


May 20



**Supplemental Figure 2: Chest radiography of Patient 14**

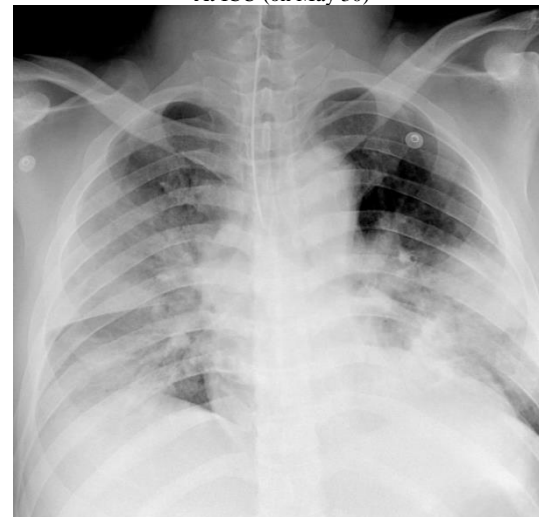
At ER visit (on May 27)



In zone IV (on May 29)



At ICU (on May 30)



ER, Emergency room; ICU, Intensive care unit

**Information on confirmed case not identified from the initial contact investigation**

Three of 33 patients were not identified in the initial contact investigation. The first patient sought for care at an orthopaedic outpatient clinic and the second patient was admitted to the general ward after passing through the ER reception area on May 27. The third patient was missed in ER visit records due to cancellation of registration, although he was at the same zone with Patient 14 for 18 minutes on May 27. Three of 41 visitors contracted MERS-CoV infection outside the ER. One person was a family member of a patient who visited the urology outpatient clinic on May 27 and two were family members of two inpatients in the general ward between May 27 and 29.