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Middle East respiratory syndrome (MERS 2012): roles of clinical pathology laboratory for screening and diagnosis

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Dear editor,

Middle East respiratory syndrome (MERS) is a new emerging infectious disease. This disease was firstly reported from Middle East in 2012[1-3]. Coronavirus is the pathogen. At present, MERS becomes a new public health threat. The new existence of disease in many countries around the world is the present global concern. In Southeast Asia, the disease is reported from Malaysia and the Philippines. The good disease surveillance system is required. The roles of clinical pathology laboratory for screening and diagnosis should be mentioned. Generally, the investigation should be provided in any suspicious cases of severe pneumonia and having history of travel to Middle East or contact with other confirmed or suspicious cases. The basic required investigations include basic routine investigation (chest-X-ray, completed blood count, urine analysis, sputum examination and culture, blood culture) and specific microbiological study of nasopharyngeal swab, tracheal aspirate, bronchoalveolar lavage or pleural tap specimens. For confirmation of the test, RT-PCR test should be used for detection of MERS coronavirus and other viruses including influenza viruses. The confirmation is based on PCR investigation. Based on a recent report by Drosten *et al.* the specimen from lower respiratory tract is the best for diagnosis[4]. Blood and urine are very poor for using in PCR diagnosis[4]. Serology might have limited role in diagnosis but it is inferior to PCR diagnosis[5,6]. However, there are many concerns on present use of clinical pathology laboratory for screening and diagnosis. Often, the test is not available and the “probable” cases can be diagnosed in any cases with having history of travel to Middle East (in previous 2 weeks) or contact with other confirmed or suspicious cases and no evidence of other causes of

respiratory illness. The decision making for proper use of antiviral drug should be further done[7].

Conflict of interest statement

We declare that we have no conflict of interest.

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