

## Risk Classification-Based and Universal Screening in Management of COVID-19 Outbreak Situation: A Cost–Utility Analysis

Dear Editor,

COVID-19 outbreak is still an important global public health problem affecting more than 77 million persons worldwide. The outbreak of the disease in a crowded place is common and there is a need for urgent outbreak control. In disease investigation, case searching is necessary for cutting local spreading chain. The local policies for case finding are an interesting issue. In some settings, criteria for risk classification are used for identifying high-risk contact person for further disease investigation. While in other settings, the use of universal active case screening is used.

Here, the authors retrospectively analyzed the new situation of the second wave COVID-19 in a tropical country. The outbreak occurred in mid-December, 2020. At first, the disease investigation used local disease classification criteria; then, the active case searching by universal screening is used. Here, the authors use a standard cost–utility analysis for comparing between risk classification-based and universal screening based on this COVID-19 outbreak situation. The cost is the overall cost for screening in each alternative screening option and the utility is the overall identified COVID-19 cases for each alternative screening option. The result from cost–utility analysis is presented in Table 1.

Based on these preliminary data, it can confirm the usefulness of active case screening for management of COVID-19 outbreak. This is concordant with a previous report from an outbreak situation in a famous sea resort.<sup>[1]</sup> The active case screening can help reduce the problem of underdiagnosis that might cause the misunderstanding that there is no local transmission despite there are many silent hidden cases in the community.<sup>[2]</sup>

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### Conflicts of interest

There are no conflicts of interest.

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**Table 1: Cost-utility analysis of comparing risk classification-based versus universal screening in management of COVID-19 outbreak situation**

	Risk classification-based screening	Universal active screening
Number of investigation	26	2000
Cost (USD)	1300	100,000
Utility (%)	11.54	41.05
Cost per unit utility (USD)	433.28	121.80

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