

Covid-19 Evidence Digest 3/20/2020

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[How to improve adherence with quarantine: Rapid review of the evidence](#)

Bottom Line: In the current COVID-19 situation, quarantine is necessary but difficult to enforce. Published literature on past infectious disease outbreaks highlights possible ways to improve public adherence to quarantine measures.

Details: Adherence to quarantine in previous disease outbreaks has been highly variable, ranging from 0% to 92.8%. Major factors that influenced people's decisions to follow quarantine protocols include: 1) public knowledge and understanding about the disease outbreak and quarantine instructions; 2) sociocultural norms; 3) perceived benefits of the quarantine; 4) perceived risks or fears of the disease; and 5) practical issues such as running out of supplies or financial consequences of not working.

Key Takeaways:

- To improve adherence to quarantine protocols, the following actions are recommended:
 1. Provide clear and consistent information about the disease outbreak and quarantine protocols.
 2. Provide a clear rationale for why quarantine is necessary. Highlight the public health benefits and importance of adhering to the quarantine.
 3. Reinforce social norms and moral values around the quarantine. Emphasize a collective commitment to protect local communities against the outbreak.
 4. Ensure essential supplies, including food, medications, etc., are provided in sufficient quantities. Provide assistance to those financially affected by the quarantine.

[Positive RT-PCR Test Results in Patients Recovered From COVID-19](#)

Bottom Line: 4 patients meeting clinical criteria for hospital discharge or discontinuation of quarantine after mild-moderate COVID-19 infection tested positive for the virus up to 13 days later.

Details: 4 healthcare workers with mild-moderate COVID-19 infection were determined to meet criteria for hospital discharge or discontinuation of quarantine. The criteria included 1. Normal temperature for > 3 days. 2. Resolved respiratory symptoms 3. Improved chest imaging findings 4. Two negative RT PCR tests from throat swab at least 1 day apart. Despite meeting these criteria all 4 healthcare workers continued to have positive RT PCR results for the virus up to 13 days later, however none of their family members became infected.

Key Takeaways:

- RT PCR (throat swab) testing remains positive for COVID-19 after symptoms resolve in at least some patients
- It is unknown if detection of the virus after recovery indicates the person is still infectious or not
- More studies are needed to determine the proportion of patients who remain PCR positive with detectable virus after recovery and if this is important or not for ongoing transmission

[Is a 14-day quarantine period optimal for effectively controlling coronavirus disease 2019 \(COVID-19\)?](#)

Bottom Line: The WHO currently recommends a 14 day quarantine for COVID-19 exposure based studies showing most COVID-19 incubation periods last 14 days or less. Emerging data suggests potentially longer incubation periods for some patients, which may impact quarantine recommendations.

Details: This study analyzed both hospitalized and non-hospitalized Covid-19 cases. Previous studies have mostly reported on hospitalized cases. The median incubation period (from exposure to developing symptoms) was 7 days (1.8 days longer than previously reported), and 11.5% of cases had incubation periods of longer than 14 days.

Currently, the WHO recommends a quarantine period of 14 days for exposed patients. However using the above numbers, only 88.5% of patients would be contained, the remaining 11.5% would go on to develop symptoms after quarantine has ended. Generally, quarantines are established to contain 95% of cases that will develop symptoms. Using numbers from the current study, a quarantine of 18 days would contain 96.2% of cases, and a quarantine of 21 days would contain 98.3% of cases.

Key Takeaways:

- Quarantines are timed to account for the longest observed incubation periods of a disease
- Previous studies have shown that most COVID-19 exposed patients will show symptoms after 14 days, but this study demonstrates potentially longer incubation periods
- More studies will be needed to better estimate COVID-19 incubation periods and inform quarantine policy