

Quarantine yes/no? Novel decision tree to assist policy and public health officials

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The recent Ebola outbreak highlighted the challenges to governments and local public health authorities in determining when individuals or populations should be subjected to quarantine. While one state or country can legally enact such laws, others may not. In many instances unintended negative consequences have resulted, and the ensuing chaos has led to major frustration both for patients and medical staff, as well as for local authorities.

Donna Barbisch, Institute for Global and Regional Readiness, and co-authors Kristi L. Koenig, UC Irvine, Center for Disaster Medical Sciences, and Fuh-Yuan Shih, from the National Taiwan University Hospital, explain how quarantine and isolation are interpreted. Citing a case study from the 2002-2003 SARS outbreak in Taiwan, they describe a series of events that resulted in one hospital having to discontinue routine and emergency services, with exposures of ten thousand patients and visitors.

The authors discuss how the use of quarantine can unintentionally introduce secondary and tertiary effects. If individuals show symptoms but are not isolated immediately, they will contaminate the quarantine group, and if individuals without symptoms are cohorted with a group already symptomatic, the risk of transmission will increase. The other unintended consequence is to patients admitted to hospitals for other medical reasons, e.g., heart attacks, strokes, trauma, and cancer.

The issue of psychological stress during quarantine is also addressed.

These include fear of the disease and possible confinement, and the effects on family, friends and colleagues.

Before civil liberties are suspended, decision-makers must use evidence-based data to support their decisions. Public health officials and political figures should avoid taking unnecessary harsh precautions in their effort to appear on top of the situation. Per Dr. Barbisch, Major General, US Army (ret): "Quarantine should only be used if the inherent restrictions will effectively reduce the spread of the disease."

Dr. Koenig, Director of the UC Irvine Center for Disaster Medicine Sciences, reminds us that the article illustrates that "there is no scientific basis for [quarantine](#) of asymptomatic health care workers exposed to Ebola or other diseases that are not contagious prior to symptom onset."

More information: journals.cambridge.org/download.php?file=%2FDMP%2FS1935789315000385a.pdf&code=aa90ea78965b1131b810d4d41529542f

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