COVID-19: France grapples with the pragmatics of isolation

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The current phase of the COVID-19 pandemic is forcing countries to choose between two strategies: one based on individual responsibility, and the other on coercive measures—the carrot and stick of popular analogy.

Coercive isolation might be justified during emergencies, but its effectiveness during a long-term management phase is unproven in liberal democracies. If isolation is imposed, people might either avoid testing and withhold contact information, or reject COVID-19 regulations entirely. In France, resistance to coercive interventions could plausibly fuse with protest movements such as the *gilets jaunes* (yellow vests).

We share two policy recommendations issued on Sept 9, 2020, by France's independent COVID-19 Scientific Council, appointed in March by President Emmanuel Macron. Our recommendations were to shorten the official quarantine period to 7 days and to offer incentives framed as rights to complement the duty of adhering to COVID-19 regulations.

In April and May, 2020, respectively, the European Centre for Disease Prevention and Control and WHO updated their criteria for discharge from isolation from 14 to 10 days after disease onset.[1,2] However, on the basis of robust scientific evidence and the French lead, several European countries are considering reducing the quarantine to 7 days. Belgium announced a 7-day quarantine period on Sept 23, 2020.

Infectious viral shedding from infected individuals comes from airway secretions and is best measured by virus RNA detection using RT-PCR on nasopharyngeal swabs. Transmission occurs almost exclusively during the first week, when high RNA concentration is detected. Concentration decreases over time, remaining detectable for up to 30 days after disease onset.[3–5] Transmission after day 7 is rarely reported (except in severe cases or immunocompromised patients), and this finding is supported by a surrogate approach showing an absence of cultivable virus from clinical specimens after days 7–8.[6] The incubation period lasts between 2 days and 12 days, with a median of 5·2 days (95% CI 4·1–6·4).[4] Virus is detected in few cases beyond day 10, and transmissions have been documented 2–3 days before symptom onset.

Thus, an effective isolation period for confirmed cases and contacts can be rationally decided, allowing strict isolation of potentially infected cases and avoidance of subsequent transmission during the high shedding (contagious) period. In symptomatic cases, after day 8 of symptom initiation, in the absence of fever, isolation can be lifted and residual risk controlled by rigorous wearing of surgical masks, hand washing, and physical distancing for an additional week. If fever remains, isolation must be maintained and patient follow-up must be carried out by the attending physician. This strategy does not apply to patients admitted to hospital or immunocompromised patients.

For asymptomatic cases, the proxy for symptom onset is the date of collection of the positive sample (ie, isolation 7 days after the date of positive sample). If symptoms appear rapidly, isolation should be extended by 1 week after symptom onset.

For contacts, isolation should be based on average incubation periods and presymptomatic viral excretion. Therefore, for contacts, the 7-day isolation should start immediately. If contacts become symptomatic, they must be tested. In the absence of symptoms on day 7, a nasopharyngeal RT-PCR screening should be performed. This timing allows sample detection of presymptomatic or asymptomatic cases and corresponds to surveillance until days 9–10, after which the risk of becoming symptomatic is very low. A negative result allows isolation to be lifted.

Shortened quarantine should increase social acceptance of isolation, but additional measures are required. Along with continued use of barrier equipment, physical distancing, and the test–trace–isolate strategy, we recommend promotion of the duty of solidarity (through self-isolation) and provision of incentives and compensation that are framed as rights.

People who voluntarily self-isolate would have the right to claim paid work leave consistent with existing guarantees; loss-of-income payments for self-employed professionals and for those who cannot document regular income; medical school-absence certificates for children of self-isolating families; and payments for home care needs (eg, food, health care, and social work).

The French Government accepted the shorter quarantine on Sept 11. However, it has not yet adopted the recommended incentives.

Since its appointment, the French COVID-19 Scientific Council has tried to bridge a historical tension between

two French public health traditions: on the one hand a technocratic state humanitarian verticalism, and on the other hand a universalist approach integrated with the welfare state's social protections.[7] Currently, in this new phase, our concern is to maintain this balance and to avoid over-verticalising the response, and to protect or support the economy while reducing COVID-19's impact on health.

Without these incentives, we are concerned that France and other countries entering this second phase risk stumbling into a situation in which there is neither efficient coercion nor broad self-compliance, with the predictable (if not inevitable) outcomes of rising rates of infection, resurgence of the pandemic, imposition of coercive measures, and civil unrest in response. Unfortunately, as history amply illustrates, when unrest threatens, governments tend to lose their belief in carrots and, instead of organising a debate about different options, feel obliged to pick up the stick. Such a debate might have been impossible in the pandemic's first phase. In the current phase, however, it is time to move from a verticalist, technocratic approach to one that is a more inclusive and open.

We are members of the French COVID-19 Scientific Council.

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