
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the Editor

# The SARS-CoV-2 epidemic: how the Italian public is being informed

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*To the Editor*

We would like to offer our comments on the crucial need to ensure that the public has rapid access to reliable, accurate and scrutinised information on epidemics that represent serious threats to public health.

Our concern arises from what occurred and is currently occurring in Italy from the public information standpoint, with the belief that intellectual trust and a consistent information policy are crucial for obtaining the consensus necessary to adopt painful and severe containment measures. Although this was thought of and discussed before the current worrying situation, we believe it nevertheless deserves some attention and consideration.

The SARS-CoV-2 epidemic prompted us to reconsider how, and especially from what source, information is disclosed and subsequently goes viral on the web and in the media. The newsworthiness of the epidemic might make this the appropriate time to reflect on the frenzied production of information to which the public is subjected.

At the beginning of the COVID-2019 epidemic, the various Italian health institutions acted cautiously and flawlessly.

In contrast, web pages and information on social networks multiplied exponentially, generating 'positive feedback'. This inevitably led to the production of excessive, unnecessary, obvious, redundant, contradictory and pseudoscientific information that created nothing but confusion and fear.

Although this is expected on social networks, it is unexpected—or only partially expected—when the media offer 'scientific' findings/data to the general public.

Emphasizing true, partially true, or highly redundant scientific news merely to increase ratings and/or media impact may create alarm, embarrassment and misperception in the general public and, above all, debases science and scientific credibility.

This regrettable behaviour becomes even more unacceptable when the dissemination of unnecessary scientific or, even worse, pseudoscientific information comes from people who work at Universities and Research Institutes.

Spurred by the media (and, at least in part, by some researchers' desire for publicity), numerous professionals continue to issue statements that seem to be contradictory; these statements are then released in a manner that generates even greater confusion in the general public.

The following are just a few examples of contradictory statements by virologists, immunologists, infectious disease specialists and epidemiologists:

- the current epidemic is similar to the seasonal flu, or to the Spanish flu, or is very different from flu in terms of threats to public health
- asymptomatic individuals do not transmit the virus, or rarely transmit, or transmit just like symptomatic individuals
- the rapid serological test (without knowing its limits, because knowing them requires validation of its sensitivity, specificity and predictive value) is a breakthrough for containing the epidemic, or has only moderate significance (because the result could be negative even in infected subjects, depending on when the test is performed)
- the molecular tests used to perform the diagnosis are proposed as a screening test, even though they may not have the characteristics required for a screening test
- the virus inactivation time varies from a few hours to 9 days (forgetting that some data refer to the detection of the viral genome and not to its infectivity)

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- the virus is genetically stable, or is just as variable as expected, or is rapidly mutating, with impact on virulence and eventual vaccine efficacy
- the original source of the animal-to-human jump is undoubtedly a bat, or a snake, or a pangolin; some even say it is pets.

What is indisputable is that currently we do not have sufficiently sound scientific evidence on the biology of the new virus. Most of the information derives from studies of the viral genome without comparable knowledge of the natural history of the infection and of its pathogenic mechanisms; it is therefore difficult to share certainties. In this situation, caution is a 'must' and, as in the majority of pandemics, the definitive results (and likewise the real numbers) can be gathered and analysed only 'when the dust has settled' and not while the pandemic is under way.

Although we realize it may be difficult, Universities and Research Institutes should discourage the dissemination of irrelevant, useless or scientifically incorrect information, and should be very careful not to provide misleading information to people who are unable to judge and filter it.

It is our opinion that the media's incessant flow of information, and the method by which it is being transmitted, has generated a feeling of ordinariness in the general public that clashes with the exceptional nature of this situation and is incompatible with scientific, or at least logical, filtering. To resolve this issue, we strongly believe that, at the beginning and even more now, the press and television should have provided and must now refer to and provide information only from accredited public institutional sources—for instance [1–5].

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## Authors' contributions

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