



YOUR QUESTION

When does contact tracing become ineffective?

What is the best evidence currently?

In most scenarios, highly effective contact tracing and case isolation is enough to control a new outbreak of COVID19 within 3 months¹.

For contact tracing to be an effective public health measure requires secondary cases to be discovered before they become infectious; hence the time from the primary case becoming infectious to the tracing of their contacts needs to be shorter than the incubation period. Longer time scales would allow tertiary cases to be infected and would snowball the tracing process. In addition, those contacts that are traced either need to be effectively screened for infection and quarantined or otherwise isolated so that they do not pose a risk to others. Therefore, while contact tracing has the potential to control COVID-19 and other close-contact pathogens, the ultimate success relies on the speed and efficacy with which suspect contacts can be contained.

The ECDC released a rapid risk assessment on 12th March 2020 in which 5 scenarios for the progression of COVID-19 are outlined². Most EU countries are currently in Scenario 2 where contact tracing, quarantine and monitoring are still valuable and should be intensified. In Scenario 3 ["sustained community transmission of COVID-19"] and Scenario 4 ["saturation of the intensive care capacity and overwhelming of health systems"], although resources may be stretched there is still value in contact tracing even in cases where it is not possible to trace all contacts of each case. Contact tracing may still contribute to delaying the spread of infections. "If resources are limited, contact tracing and follow-up can be prioritised, first to the high-risk exposure contacts of each case (close contacts), contacts that are healthcare workers or work with vulnerable populations, followed by as many as possible of the low-risk exposure contacts."

The Health Protection Surveillance Centre recommends that contact tracing should be initiated immediately after a confirmed case of COVID-19³. Close contacts of a confirmed case should undergo active follow-up for 14 days after the last possible exposure to a confirmed COVID-19 case. Contact should be made with them on a daily basis to ask about relevant symptoms for 14 days after the last possible exposure to a confirmed COVID-19 case. The lead team undertaking this can make an operational decision as how best to manage this such as use of telephone calls, text messages or emails on a daily basis. Casual contacts should undergo passive follow-up for 14 days after the last possible exposure to a confirmed COVID-19 case.


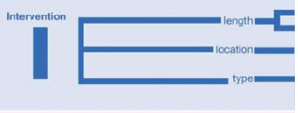


With regard to contact tracing of healthcare workers, as community transmission becomes more widespread and exposure of healthcare workers more frequent, countries should consider that resources may be better spent on other infection prevention and control activities in the healthcare setting.

SOURCES

1. Hellewell, J., et al., *Feasibility of controlling COVID-19 outbreaks by isolation of cases and contacts*. The Lancet Global Health, 2020
 DOI: [10.1016/S2214-109X\(20\)30074-7](https://doi.org/10.1016/S2214-109X(20)30074-7)
2. ECDC, *European Centre for Disease Prevention and Control. Novel coronavirus disease 2019 (COVID-19) pandemic: increased transmission in the EU/EEA and the UK*: 6TH UPDATE 2020, ECDC: Stockholm <https://www.ecdc.europa.eu/en/publications-data/rapid-risk-assessment-novel-coronavirus-disease-2019-covid-19-pandemic-increased>. ACCESSED 13TH MARCH 2020
3. *Novel Coronavirus 2019 (COVID-19) National Interim Guidelines for Public Health management of contacts of cases of COVID-19, including health care workers*. HSE Health Protection Surveillance Centre <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/contacttracingguidance/National%20Interim%20Guidance%20for%20contact%20tracing%20V.6.pdf> ACCESSED 13TH MARCH 2020

Produced by the members of the National Health Library and Knowledge Service Evidence Team.[†] Current as at 16 MARCH 2020 This rapid evidence review collates the best available evidence at the time of writing. Emerging literature or subsequent developments in respect of COVID-19 may require amendment to the information or sources listed in the document. Although all reasonable care has been taken in the compilation of content, the National Health Library and Knowledge Service Evidence Team makes no representations or warranties expressed or implied as to the accuracy or suitability of the information or sources listed in the document. This evidence summary is the property of the National Health Library and Knowledge Service and subsequent re-use or distribution in whole or in part should include acknowledgement of the service.

The following PICO(T) was used as a basis for the evidence summary:

	Suspected or confirmed covid-19 patient
	CONTACT TRACING
	
	EFFECTIVENESS AT SLOWING BREAKING THE CHAIN OF TRANSMISSION

The following search strategy was used:

(((((("PANDEMICS"[MESH TERMS]) OR ("INFLUENZA, HUMAN"[MESH TERMS])) OR (PANDEMIC OR PANDEMICS OR INFLUENZA) OR (INFLUENZA AND HUMAN) OR ("HUMAN INFLUENZA") OR (((((COVID-19) OR (CORONAVIRUS OR "CORONA VIRUS" OR "2019-NCOV" OR "2019 NCOV")) OR ("SEVERE ACUTE RESPIRATORY SYNDROME CORONAVIRUS 2"[]) OR (WUHAN[TITLE/ABSTRACT] AND VIRUS[TITLE/ABSTRACT])) OR ("2019 NOVEL CORONAVIRUS" OR "2019 NEW CORONAVIRUS")))) AND (CONTACT AND TRAC*) FILTERS: FROM 2018 – 2020

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