Test des contacts à faible risque

RAG 23/03/2021

RMG 25/03/2021 : *« Le RMG prend acte de l'avis RAG sur le testing des LRC mais ne le valide pas au vu de la situation épidémiologique actuelle et du potentiel impact sur la capacité de prélèvement. Celui-ci pourra être de nouveau considéré à l'avenir dans une phase descendante, il sera alors remis à l'agenda du RMG.*

QUESTION

Dans l'optique de futurs assouplissements et dans le contexte d'une capacité de test élargie, les groupes supplémentaires qui pourraient être testés, ainsi que les implications associées, sont actuellement analysés.

Dans le cadre de la recherche de contacts, les tests et la quarantaine sont actuellement liés et cela ne concerne que les contacts à haut risque ou personnes symptomatiques. Ce n'est que dans le cas d'un regroupement de cas (par exemple à l'école, dans une unité résidentielle ou sur le lieu de travail) que le dépistage est parfois étendu, sans que les personnes soient mises en quarantaine en attendant le résultat du test. **Serait-il utile de tester plus généralement les contacts à faible risque identifiés ?**

Lorsque les tests sont déployés à plus grande échelle, les résultats faussement positifs peuvent être un problème. L'excrétion virale prolongée après un test initial positif est un problème connu. La recommandation actuelle en Belgique est que les personnes ayant déjà été infectées par le SARS-CoV-2 ne doivent pas être mises en quarantaine ou testées dans les 8 semaines suivant un premier test positif. Toutefois, cette exception n'est pas acceptée en cas de voyage à l'étranger. Des discussions sont en cours au niveau européen concernant **les circonstances dans lesquelles les personnes ayant déjà été infectées peuvent être exemptées des tests et/ou de la quarantaine.**

RECOMMANDATIONS:

- **Il est recommandé que les contacts asymptomatiques identifiés comme étant à faible risque soient testés une fois au jour 5 à l'aide d'un test RT-PCR.**
    - Si cela n'est pas possible sur le plan logistique/opérationnel pour tous les contacts à faible risque, la priorité est donnée aux contacts à faible risque au sein des collectivités (collectivités résidentielles, mais aussi écoles et entreprises).

- La classification des risques par l'application CoronAlert étant moins fine (elle ne prend en compte que la distance et la durée du contact, il n'y a pas d'évaluation du port du masque, de l'environnement extérieur ou intérieur, ni de la ventilation...), cette recommandation ne s'applique pas aux personnes qui sont identifiées par l'application CoronAlert comme des expositions à faible risque. L'autodiagnostic pourrait être utile pour ce groupe à l'avenir.
- Aucune quarantaine n'est requise dans l'attente du résultat du test.

1. Testing of low-risk contacts

1.1 ELEMENTS OF DISCUSSION

- Current measures in different countries (regarding definition of contacts and testing strategies) are highly variable, illustrating the lack of solid evidence.
- Not all low-risk contacts will always be known but this does not mean that testing cannot be useful in case LRCs have been identified. Especially in view of airborne transmission and whilst ventilation cannot always be assessed, the risk for LRCs might be real.
- LRCs are now already identified and contacted by the call center which would make implementation of the measure easier. However, with increased virus circulation and increased contacts in the community, numbers might quickly become higher and put an additional strain on the test&trace infrastructure.
- Increased testing of LRCs would mean an important increase of testing in children. Harms/benefits might need to be carefully weighed, especially for children <6y age for which the international literature shows a reduced susceptibility.
- As an alternative approach, testing high-risk contacts of high-risk contacts could be considered, although the benefit of this strategy is questionable in case of early negative testing of high-risk contacts.
- Adopting this strategy might give the signal that testing is an appropriate substitute for quarantine, which it is not. On the other hand, LRC are currently neither quarantined nor tested, so increased testing is rather adding a restriction instead of loosening.
- Currently, test-positivity rates in high-risk contacts are high (+- 20%). Data from the more elaborate testing program of students at KUL show that the relationship between tested individuals and test-positivity rate is not linear. In order to reduce the risk of missing positive cases, we should test broadly enough and aim for a rather low test-positivity rate. If we want to obtain a test-positivity rate of max. 10%, at least +-10 persons should be tested per index case. Of note, these data might be specific to the context of students who are on campus and living in congregate housing.

1.2 CURRENT SITUATION IN BELGIUM

The procedures are described on the Sciensano website and summarized in the table on the next page. Low-risk contacts are all those

- More than 15 minutes of contact with a COVID-19 patient at a distance of <1.5, but where both were adequately using a mouth mask
- Contact with a COVID-19 patient for less than 15 minutes at a distance of <1.5 m
- In the same room/enclosed environment with a COVID-19 patient for more than 15 minutes, but where a distance of >1.5 m was respected.

Classification of contacts is slightly different in schools:

- In child care and kindergarten, all children and the caregiver are considered to be low risk contacts in case of infection in **one** other child.
- In primary school, the children sitting next to a confirmed COVID-19 are high-risk contacts. The other children in the classroom, as well as the teacher are considered low-risk contacts. If there is no fixed seating, the entire class group is considered as high-risk contacts in case of infection in one of the children.

More elaborate testing strategies can be used in case of detection of a cluster (min. 2 cases) or in special situations, like

- **Nursing homes**: based on a risk assessment it can be decided to only test high-risk contacts or to test more extensively and include also low-risk contacts. The testing protocol followed is the standard one (a first RT-PCR test asap and a second RT PCR test after 7 days).
- **Prisons:** the decision to only test HRC or immediately include LRC (eg. all detainees and staff in the index case's department) is made based on an investigation by the health services of the Justice Department.

1.3 INTERNATIONAL RECOMMENDATIONS

see summary table on next pages.

	Type of contacts	Criteria	Measures (if asymptomatic)
WHO	No differentiation of type of contacts	• Face-to-face contact with a probable or confirmed case within 1 meter and for at least 15 minutes • Direct physical contact with a probable or confirmed case • Direct care for a patient with probable or confirmed COVID-19 disease without the use of recommended PPE • Other situations as indicated by local risk assessments	• 14 days quarantine • No testing, unless quarantine period is shortened
ECDC	High-risk exposure (Close contacts)	• Face-to-face contact with a COVID-19 case within two meters for more than a total of 15 minutes over a 24-h period (even if not consecutive) • Physical contact with a COVID-19 case • Direct contact with infectious secretions of a COVID-19 case (e.g. being coughed on) • Being in a closed environment (e.g. household, classroom, meeting room, hospital waiting room, etc.) or travelling with a COVID-19 case for more than 15 minutes • Healthcare worker or other person providing direct care to a COVID-19 case or a laboratory worker handling specimens from a COVID-19 case, without recommended PPE or with a possible breach of PPE or hand hygiene	• 14 days quarantine • Testing asap with RT-PCR or rapid Ag test • Optionally, test on day 10 with RT-PCR to end quarantine earlier
	Low-risk exposure	• Face-to-face contact with a COVID-19 case within two meters for less than 15 minutes • Being in a closed environment or travelling with a COVID-19 case for less than 15 minutes • Healthcare worker or other person providing direct care to a COVID-19 case, or laboratory workers handling specimens from a COVID-19 case, wearing the recommended PPE and having performed appropriate hand hygiene	• No quarantine • Testing asap with RT-PCR or rapid Ag test in settings with vulnerable populations or in which transmission is likely (e.g. certain occupational settings, weddings…)
Belgium	High risk contacts	• Cumulative contact of at least 15 minutes within a distance of <1.5 m, without proper use of a mouth mask by either person • Direct physical contact with a COVID-19 patient	• 10 days quarantine • Testing asap with RT-PCR (>=6 years)

		• Direct contact with excretions or body fluids from a COVID-19 patient • Identified by the "Coronalert" application as a close contact • Traveled with a COVID-19 patient for more than 15 minutes, in any means of transportation, sitting within two seats (in any direction) of the patient, even if all involved were correctly wearing mouth masks	• Optionally, test on day 7 with RT-PCR to end quarantine earlier
	Low-risk contacts	• More than 15 minutes of contact with a COVID-19 patient at a distance of <1.5, but where both were adequately using a mouth mask • Contact with a COVID-19 patient for less than 15 minutes at a distance of <1.5 m • In the same room/enclosed environment with a COVID-19 patient for more than 15 minutes, but where a distance of >1.5 m was respected	• No quarantine • No testing (unless in the context of a cluster in a collectivity, based on a risk assessment)
The Netherlands	Household contacts	• People who live in the same household and had prolonged contact with the index case at a distance of less than 1.5 meters	• 10 days quarantine • Testing asap (including <6 years) • Preferably, test between day 5 and 10 with RT-PCR or rapid Ag test to end quarantine earlier
	Close contacts	• Contact with the index case for a total of more than 15 minutes (within 24 hours) at a distance of less than 1.5 meters • Received a notification from the app CoronaMelder • High-risk exposure of less than 15 minutes (e.g., coughing into the face, or direct physical contact such as kissing) • Airplane passengers seated within 2 seats distance forward, backward and sideways of the index (max 24 contacts • Airplane crew members who had intensive contact with the index (e.g. because extra care was provided) • Train or bus passengers with fixed seats who sat within 2 seats radius (front, back and side) of the index	
	Other (not close) contacts	• Prolonged contact (more than 15 minutes) with the index case at more than 1.5 meters distance in the same room, for example in the office, classroom or during meetings • Contact with the confirmed person at less than 1.5 meters during his infectious period for less than 15 minutes (not involving high-risk exposure)	• No quarantine • Test on day 5 with RT-PCR or rapid Ag test

		• All fellow passengers of the index in trains or busses without fixed seats, but of which the data are available.	
France	Contacts at risks	• Shared the same living space as the confirmed or probable case • Direct contact with a case, face to face, within 2 meters, regardless of the duration (e.g. conversation, meal, flirting, hugging, kissing) - People encountered in the public space in a fleeting manner, even if they are not wearing a mask, are not considered to be at-risk contacts • Provided or received hygiene or care to a case • Shared a confined space (office or meeting room, personal vehicle ...) for at least 15 consecutive or cumulative minutes over 24 hours with a case or having been face to face with a case during several episodes of coughing or sneezing	• 7 day quarantine • Testing asap with RT-PCR or rapid Ag test • Testing on day 7 with RT-PCR or rapid Ag test
	Contacts at negligible risk	• All other contact situations • Any person with a history of confirmed SARS-CoV-2 infection less than 2 months old	• No quarantine • No testing
Germany	Higher risk of infection contacts	• Close contact (<1.5 m) for more than 15 minutes without adequate protection (index case and contact did not wear consistently and correctly a mouth mask) • Contact regardless of the distance with probably high concentration of infectious aerosols in the room > 30 minutes: ○ Direct contact with secretions or bodily fluids, in particular respiratory secretions, such as kissing, coughing, contact with vomit, mouth-to-mouth ventilation, etc. ○ Exposed to infectious aerosols for example during celebrations, singing together or doing sports indoors without adequate ventilation ○ Exposed to a confirmed COVID-19 case on a flight, regardless of wearing a mask ○ Exposed to a confirmed COVID-19 case in a relatively confined room situation or difficult to understand contact situation (for example, school classes, joint school lunches, group events) ○ …	• 14 days quarantine • Testing at the end of the quarantine period with RT-PCR or rapid Ag test • Possibly testing earlier to end quarantine period, on a case-by-case decision

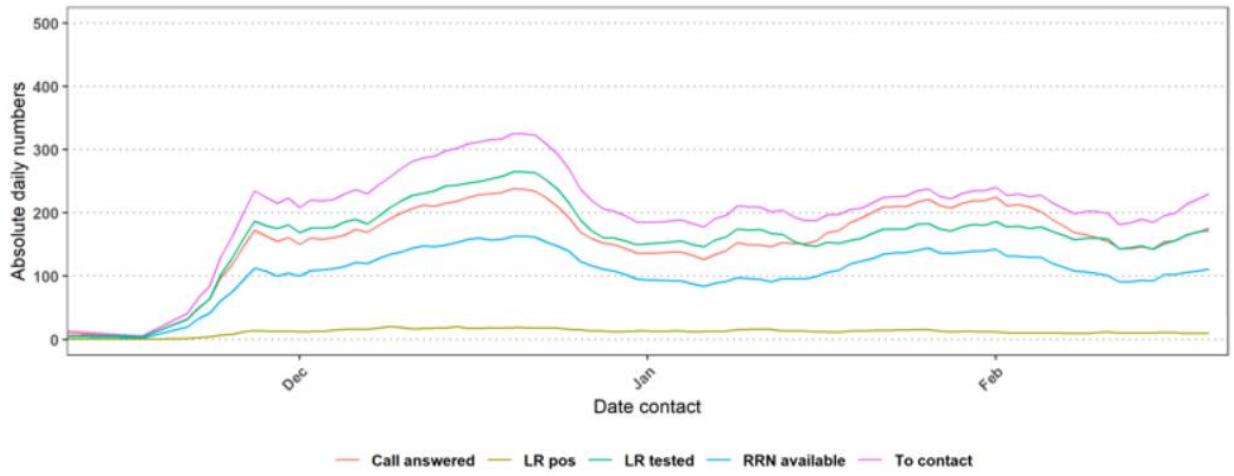
	Lower risk of infection contacts	• No exposure as in category 1, but infection-related exposure cannot be safely ruled out: ○ Close contact (<1.5 m) for less than 15 minutes ○ Index case and contact wore consistently and correctly mouth masks in situations where 1.5 m minimum distance could not be observed ○ Short-term stay (< 30 min) in a room with probably high concentration of infectious aerosols ○ …	• No quarantine • No testing
United Kingdom	No differentiation of type of contacts	• Anyone who lives in the same household as another person who has COVID-19 symptoms or has tested positive for COVID-19 • Anyone who has had any of the following types of contact with someone who has tested positive for COVID-19: ○ Face-to-face contact including being coughed on or having a face-to-face conversation within one meter ○ Been within one meter for one minute or longer without face-to-face contact ○ Been within 2 meters of someone for more than 15 minutes (either as a one-off contact, or added up together over one day) ○ Travelled in the same vehicle or a plane	• 10 days quarantine • No testing
United States	No differentiation of type of contacts	• Someone who has been within 6 feet of an infected person (laboratory-confirmed or a clinically compatible illness) for a cumulative total of 15 minutes or more over a 24-hour period (for example, three individual 5-minute exposures for a total of 15 minutes in one day).	• 14 days quarantine • Test asap • Testing can be considered to end quarantine earlier

1.3 ADDITIONAL INFORMATION

No scientific literature specifically addressing this question has been identified.

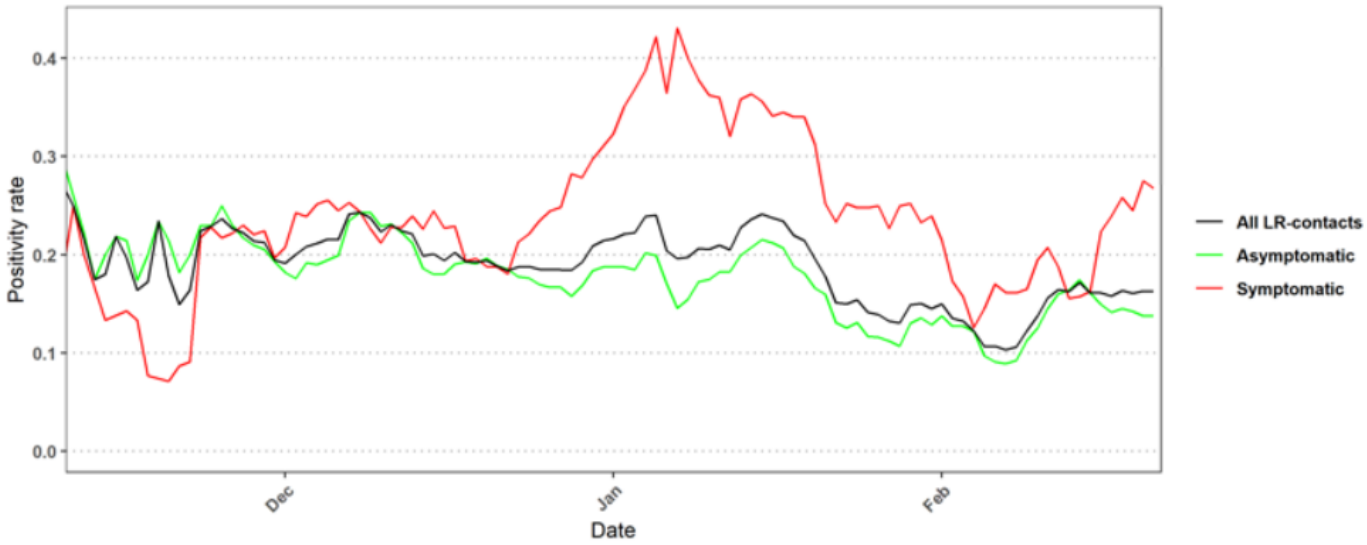
As mentioned, low-risk contacts are currently not systematically registered nor tested, so the below results from the contact tracing database should be interpreted with care. In addition, LRC in collectivities are mostly not included, since contact tracing is done internally (e.g. by school health services).

Fig.1 Number of LRC registered daily by call center (*Source: database contact tracing)*



to contact=to be contacted by CC, call answered=successfully contacted, RRN available=info available to link to lab-result database, HR tested=record available in lab-result database, LR pos=positive PCR or AG test

Fig.2 Positivity rate in tested low-risk contacts registered in central database, by symptom status (*Source: database contact tracing)*



More detailed data are available from the integrated contact tracing project among students from KU Leuven. Enhanced contact tracing comprises the extended circle of contacts, including from social life beyond education activities. Examples are students living in the same residence ("kot"). By March 10, 472 high-risk contacts and 243 low-risk contacts had been tested. **7.2% of the high-risk contacts and 2.1% of the low-risk contacts tested positive**. The positivity rate among low-risk contacts was substantially higher than among students screened based on a self-risk assessment (0.3%) and similar to the positivity rate among students arriving from a red zone (1.8%).

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