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## Commentary

## Preventive measures for accompanying caregivers of children in paediatric health care during the COVID-19 pandemic—walking an ethical tightrope

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A number of measures have been established to prevent nosocomial transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) within health-care institutions [1]. In a paediatric setting, these considerations must also include the parents or other adult caregivers accompanying their children. Strict isolation and no-visitor policies, as implemented by many adult health-care facilities, are not feasible when the presence of at least one adult caregiver is warranted.

The aim of this commentary is to point out specific aspects of the management of child–parent tandems in paediatric health-care institutions under the special circumstances and challenges imposed by the current pandemic of coronavirus disease 2019 (COVID-19), sharing our perspective from Switzerland, which figures among the countries with the highest reported incidence worldwide.

Respiratory or gastrointestinal viral infections account for a substantial proportion of inpatient admissions in paediatric wards as well as urgent outpatient consultations, especially during seasonal epidemics, such as those caused by respiratory syncytial

virus, influenza virus and rotavirus [2–4]. Usually a symptom-driven isolation and cohorting strategy is applied, as this can be implemented while identification of the specific pathogen is pending or in the absence of performing specific aetiological diagnostic testing. For example, patients with clinical signs compatible with a respiratory viral infection may be cohorted within the same room with enforcement of droplet isolation precautions. As the causative pathogens are primarily affecting young children, but are not typically associated with severe disease in caregivers, the risks of nosocomial infection to the accompanying adult are considered negligible or at least outweighed by the benefit of the parent's presence [5].

This is in contrast to SARS-CoV-2, where adults are at higher risk for severe disease and are perhaps more readily infected than children, resulting in a need for protection from hospital-acquired infections for individual as well as epidemiological reasons [6–8].

At the same time, considering that any children with SARS-CoV-2 infection are likely to have acquired the virus in the household, caregivers should be considered as a possible source of infection [6].

In paediatric health-care institutions with a general mask-wearing policy for patient-facing staff, as implemented in most Swiss hospitals since March 2020, adult caregivers are likely to represent the largest pool of possible transmitters. The risk from accompanying caregivers will be increased in times of high incidence of community SARS-CoV-2 transmission, when there may be a notable number of asymptomatic or pre-symptomatic contagious individuals in the population.

Measures to avoid nosocomial infections should therefore aim at limiting the caregiver's presence and mobility within the hospital to a minimum without completely banning parents from paediatric health-care settings. This can be achieved by restricting the acceptable number of accompanying adults in the inpatient as well as outpatient setting, for example to a maximum of one person per patient. Risks can be further reduced through a general mask-wearing policy implemented when distancing measures cannot

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**Table 1**  
Preventive measures to consider for accompanying caregivers of children in paediatric health care during the COVID-19 pandemic

	In case of high COVID-19 incidence in the community	In case of low COVID-19 incidence in the community
Overall visitor policy including outpatient settings	One asymptomatic parent/caregiver to accompany the child, no other visitors allowed <ul style="list-style-type: none"> <li>• General mask-wearing policy</li> <li>• Exceptions to allow both parents to be considered in Neonatal Intensive Care Units (e.g. for limited time frames), and to be evaluated individually under other special circumstances (e.g. end of life)</li> </ul>	Both parents/adult caregivers from the same household allowed to accompany their child as long as: (1) asymptomatic, (2) distancing measures can be guaranteed and (3) no other local recommendations exist. <ul style="list-style-type: none"> <li>• General mask-wearing policy, if this is in line with public health recommendations for closed spaces, e.g. shops, public transport etc.</li> <li>• In addition, depending on local spatial circumstances and duration of exposure, stricter measures are indicated, e.g. in outpatient clinics → restriction to one caregiver and general mask-wearing policy, no other visitors allowed</li> </ul>
Caregivers of inpatients with confirmed SARS-CoV-2 or inpatients in quarantine	Regardless of epidemic phase: <ul style="list-style-type: none"> <li>• Individual isolation of each patient on the ward in a single room, accompanied by a maximum of one designated asymptomatic caregiver, for whom quarantine measures apply: <ul style="list-style-type: none"> <li>◦ Caregiver stays within the patient room</li> <li>◦ No use of cafeteria or other common spaces within the hospital</li> <li>◦ On leaving patient room: puts on a surgical mask and performs hand hygiene</li> <li>◦ Outside the hospital: adheres to quarantine instructions as declared by official authorities</li> </ul> </li> <li>• Caregivers developing symptoms compatible with COVID-19 should be isolated and evaluated for SARS-CoV-2 according to local algorithms and be replaced by another asymptomatic caregiver</li> <li>• Consider also testing asymptomatic caregivers upon patient's admission</li> </ul> Adaptation if spatial capacities are limited and SARS-CoV-2-confirmed inpatients need to be cohorted in multi-bedded rooms (try to avoid whenever possible): <ul style="list-style-type: none"> <li>• Strict bed space isolation</li> <li>• Enforce physical distancing between caregivers</li> <li>• Caregivers should wear masks within patient rooms except while asleep</li> <li>• Ensure excellent adherence to standard precautions and respiratory hygiene</li> </ul> Apply overall visitor policy	
Caregivers of other inpatients (not fulfilling case definition for COVID-19)	<ul style="list-style-type: none"> <li>• Caregivers developing symptoms compatible with COVID-19 should be isolated and evaluated for SARS-CoV-2 according to local algorithms and immediately be replaced by another asymptomatic caregiver</li> <li>• Consider also testing asymptomatic caregivers upon patient's admission</li> </ul>	

Abbreviations: COVID-19, coronavirus disease 2019; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.

be guaranteed. Proposed preventive measures are summarized in [Table 1](#).

For paediatric inpatients with confirmed COVID-19, a pathogen-specific rather than symptom-based isolation approach should be implemented, compliant with official isolation policies. If the infrastructure allows, we propose isolation in a single room in the company of one designated asymptomatic caregiver, for whom quarantine measures apply. Implementing quarantine in the hospital setting implies that the accompanying adult stays within the patient room at all times, does not use the cafeteria or other common spaces within the hospital and combines excellent hand hygiene with donning a surgical mask upon leaving the room. In case of developing signs or symptoms compatible with COVID-19, the parent should be evaluated for SARS-CoV-2 and, if possible, be replaced by another, asymptomatic caregiver. After leaving the hospital, quarantine measures need to be continued as per local authorities' policy.

A first peak of the COVID-19 pandemic in Switzerland and most other affected European countries occurred in March 2020, when the numbers of seasonal influenza and respiratory syncytial virus cases were rapidly declining, probably supported by reduced transmissions due to lockdown measures [9,10]. In this setting, and with overall relatively low case numbers of COVID-19 in children, capacities for single-room isolation on the ward were sufficient in Swiss hospitals.

While preparing strategies to respond to a possible next peak of COVID-19, there was a need to account for this arising concomitantly with other seasonal viral epidemics. This would lead to a higher number of suspected cases, given the large overlap in clinical presentations. Spatial resources for individual isolation of all possible and confirmed cases would be expected to be insufficient, in which case the protection of accompanying caregivers, particularly from

transmissions among each other, would be hampered. Yet, there is a considerable and unquestionable benefit of a caregiver's bedside presence outweighing the potential risk of contracting SARS-CoV-2 within a paediatric hospital, a position undoubtedly shared by parents and clinicians alike. This results in a difficult to resolve ethical dilemma. To partially mitigate the risk to caregivers when SARS-CoV-2-confirmed inpatients must be cohorted in multi-bedded rooms, strict bed space isolation, enforced social distancing between caregivers, and excellent adherence to standard precautions and respiratory hygiene are required. Furthermore, masks should be worn by caregivers also within the patient rooms except while asleep. Switzerland, as many other European countries, is indeed experiencing a second wave of COVID-19 with much higher incidence of paediatric infections than in the first wave, peaking early in November 2020. In response, testing capacities have been extended, among other measures, by the introduction of rapid antigen tests. When used for screening asymptomatic admissions, we find ourselves confronted with more patients with confirmed COVID-19, and have to assume a substantial number of asymptomatic carriers among asymptomatic or pre-symptomatic accompanying caregivers as well. Given these epidemiological circumstances, we recommend routine screening testing for SARS-CoV-2 of all inpatients and would consider screening of designated caregivers upon admission to the hospital as well.

Such strategies, however, remain subject to the locally available resources and must be promptly revised upon changing epidemiological circumstances.

### Transparency declaration

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