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Letter to the Editor

Compulsary SARS-CoV-2 (booster-) vaccination in healthcare facilities can not replace personal protection measures while dealing with vulnerable individuals



Recently, Marra et al.¹ reported a short term effectiveness of SARS-CoV-2 vaccines in immunocompromised patients. The duration of vaccine effectiveness, however, does not appear to be long term as shown by Hall et al.² who reported that two doses of BNT162B2 vaccine were associated with high short-term protection up to 6 months, but our own data suggests that the fact of limited protection after vaccination is likely underestimated. In our setting we closely monitor health-care staff after any kind of suspected exposition or according to Covid-19 associated symptoms in order to avoid or at least reduce intra-facility SARS-CoV-2 transmission. Between January 17th and February 16th we tested 3894 specimens from staff members and identified 373 previously unknown SARS-CoV-2 cases as duplicates or follow-ups were excluded from analyses.

In 19 cases vaccination status was unknown. Of the remaining 354 cases six persons were unvaccinated, 1 person reported a single vaccine dose (brand not reported), 33 persons were fully vaccinated according to the EMA approval, 2 persons reported two additional booster shots, and 2 other persons reported triple vaccination plus infection acquired immunity, while 313 persons were three times vaccinated. This means that 89.5% of the SARS-CoV-2 positive staff members received at least three vaccination shots. Testing was performed with RT-qPCR as previously described.³ The percentage of fully vaccinated staff members was 97.74%. At the time of first sampling Covid-19 associated symptoms were reported by 175 persons, but proceeding analysis showed that some staff members were initially screened in a pre-symptomatic phase and reported symptoms later in follow-up testings.

Taking into account that third vaccination shots (boosters) were recommended in Germany since the second half of October 2021,⁴ our data together with the actual infection rates indicate that with the occurrence of the Omicron variant no significant protection with regard to infection is reached even with a booster shot. Thereby, it has to be considered that the total number of positive cases in the aforementioned 4 weeks period exceeded the cumu-

lated number of SARS-CoV-2 positive staff members of the previous 8 months.

These observations lead to the question to what extent SARS-CoV-2 vaccinations of health care staff, which are already prescribed by law in different European countries, will help to achieve the objective to protect the vulnerable groups against viral transmission. The most effective layers to protect vulnerable groups in care facilities will remain conservative measures accepting that Omicron has perforated multiple layers of the "Swiss cheese model".⁵

References

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