

CORRESPONDENCE

Adverse Effects after BNT162b2 Vaccine and SARS-CoV-2 Infection, According to Age and Sex

TO THE EDITOR: After publication of our study, which examined adverse events after BNT162b2 (Pfizer–BioNTech) vaccination and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection,¹ we received requests to stratify the findings according to age and sex,² since some adverse events may be concentrated in specific groups.³ The original study did not include these results because stratification of rare events into small subgroups can result in inaccurate estimates.

In response to these requests, here we provide case counts for adverse events that were strongly associated with either vaccination or SARS-CoV-2 infection,¹ stratified according to sex and 10-year age group (Table S1 in the Supplementary Appendix, available with the full text of this letter at NEJM.org). These counts could potentially contribute to future meta-analyses.⁴ Estimates of risk ratios and risk differences are provided for male and female persons older or younger than 40 years of age. Even in the analysis of these larger subgroups, the results should be interpreted with caution, since many of the confidence intervals are wide. The statistical methods used for this analysis are identical to those used for the original analysis.

The risk of myocarditis, which is considered to be the most potentially serious vaccine-associated adverse event, was increased after both vac-

ination and SARS-CoV-2 infection. After vaccination, the risk was increased mostly among young male adolescents and adults (16 to 39 years of age), with 8.62 excess events per 100,000 persons (95% confidence interval [CI], 2.82 to 14.35). After infection, the risk was increased in both age categories (<40 and ≥40 years) and in both male and female adolescents and adults, with 11.54 excess events per 100,000 persons (95% CI, 2.48 to 22.55) in young male adolescents and adults.

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Disclosure forms provided by the authors are available with the full text of this letter at NEJM.org.

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