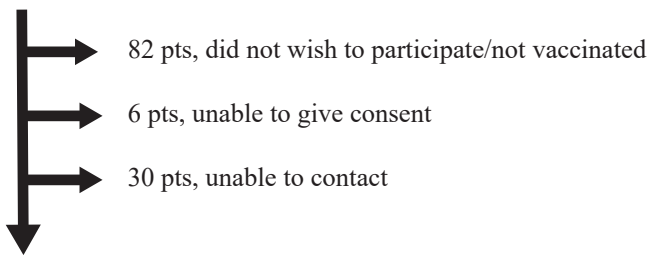


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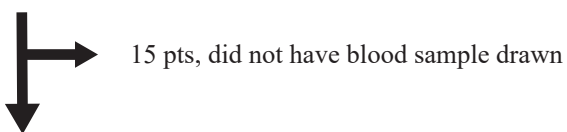
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## Supplementary figure S1. Flowchart of patient inclusion

387 eligible patients

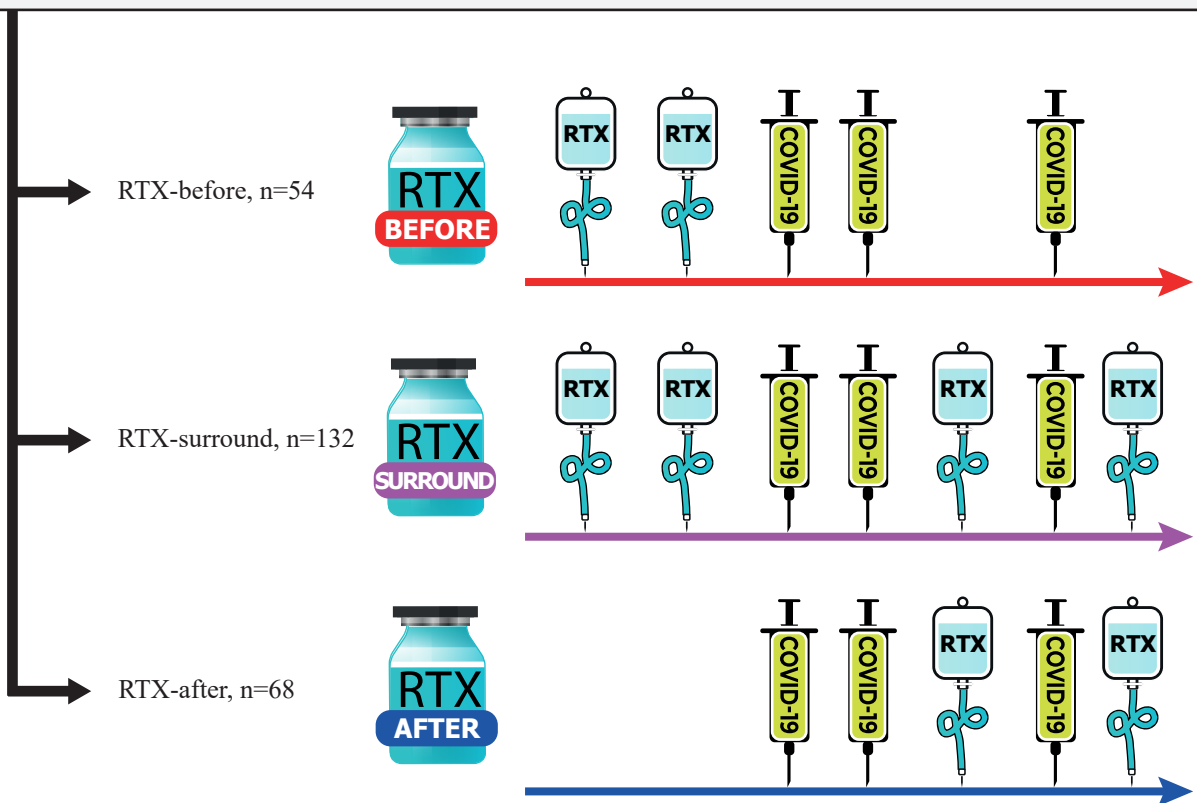


269 included patients

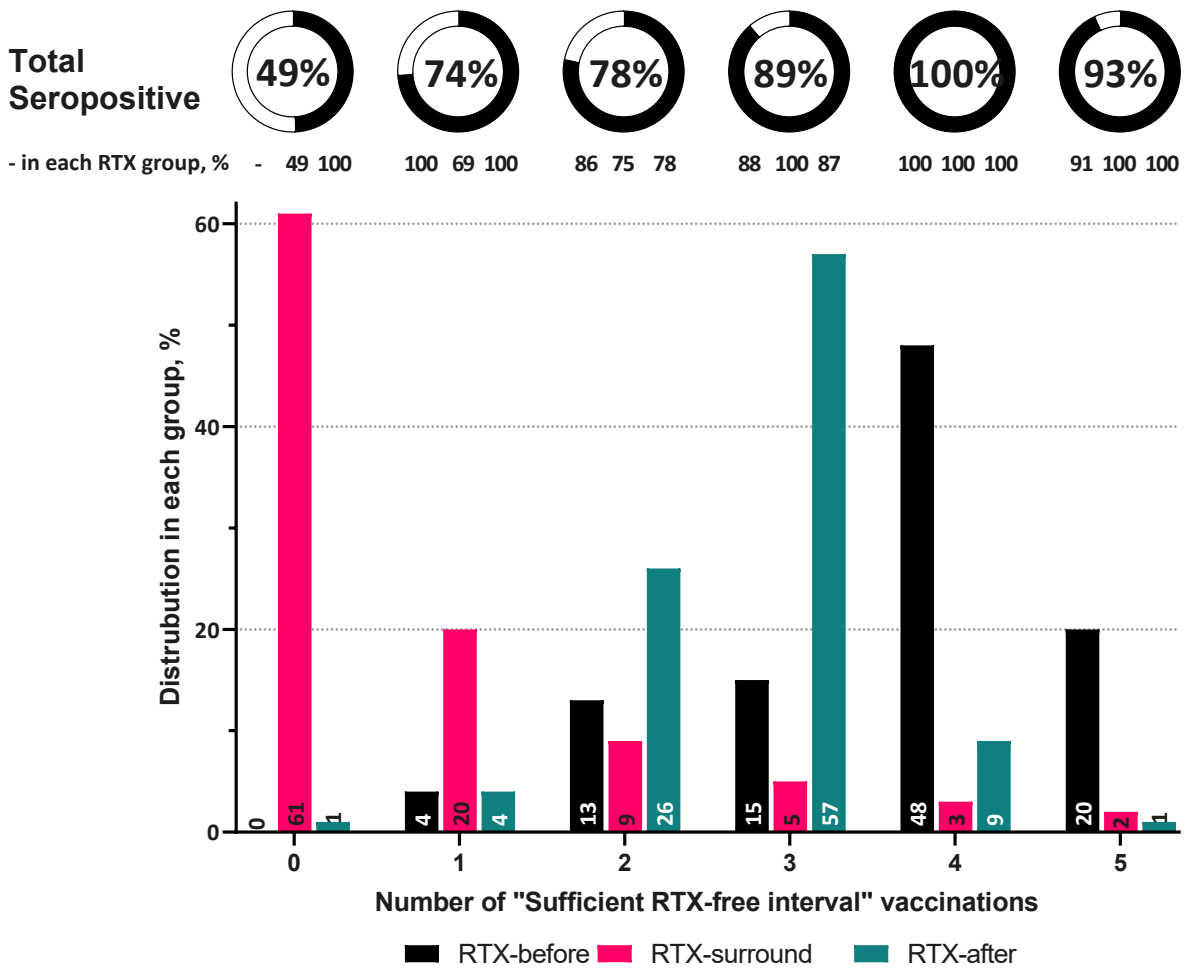


254 included patients

Patients who had only received RTX before vaccination were placed in the "RTX-before" group.  
Patients who received RTX before and after the primary COVID-19 vaccine were placed in the "RTX-surround" group.  
Patients who had only received RTX after their primary COVID-19 vaccine were placed in the "RTX-after" group.

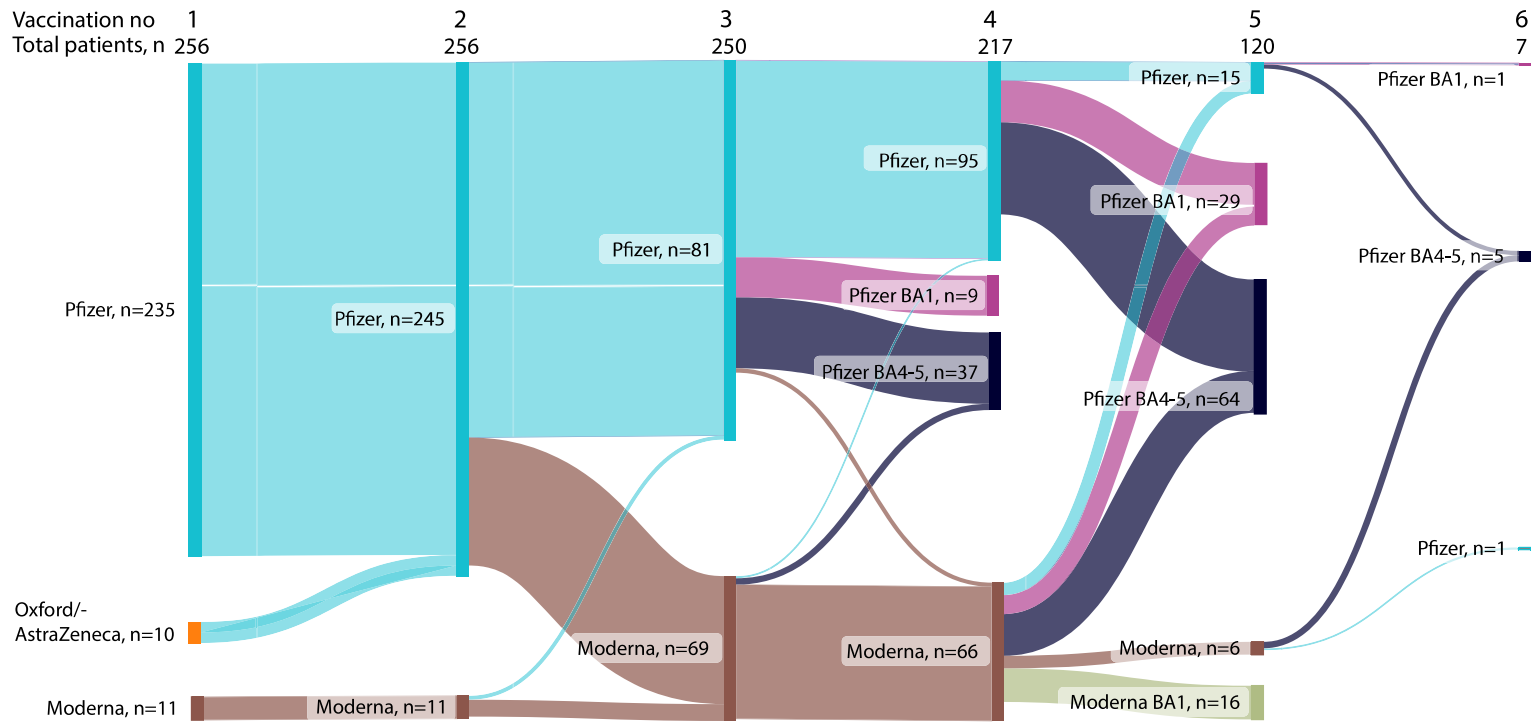


**Supplementary figure S2.** Distribution of number of “Sufficient RTX-free interval” COVID-19 vaccination within the 3 groups (RTX-before, -surround & -after) with associated degree of measurable SARS-CoV-2 IgG antibodies.



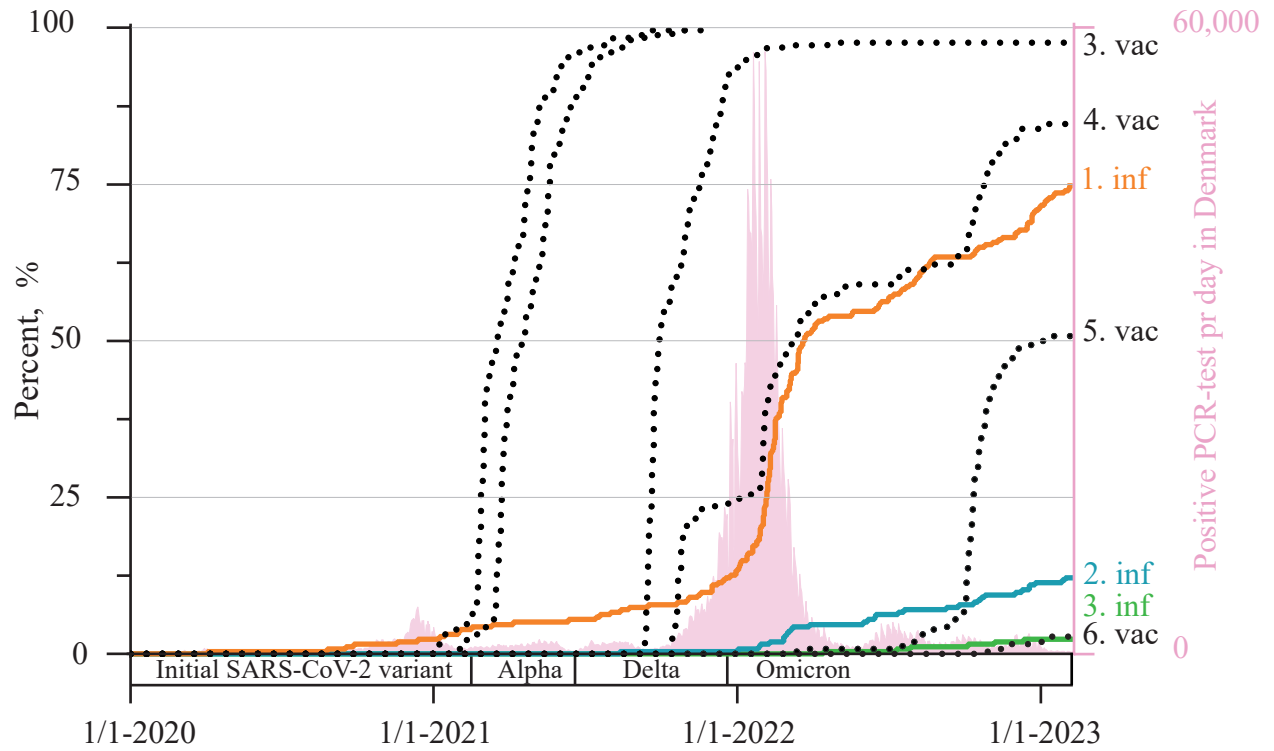
Vertical numbers within each bar indicate percentage. Pie charts indicate the percentage of patients with measurable antibodies combined in the 3 RTX groups. Line of small numbers below pie chart indicate the percentage in each RTX-group. The RTX-before group had a median of 4 (IQR 3-5) and mean of 3.7 “Sufficient RTX-free interval” vaccinations. The RTX-surround group had a median of 0 (IQR 0-1) and mean of 0.8 “Sufficient RTX-free interval” vaccinations. The RTX-after group had a median of 2 (IQR 2-4) and mean of 2.7 “Sufficient RTX-free interval” vaccinations.

**Supplementary figure S3.** Sankey diagram of the vaccines given to the AIIRD patients



Numbers above the graph indicate vaccine number and the total number of patients receiving that number of vaccines. In the graph are each vaccine type including patients receiving it are specified, e.g. (Pfizer, n=235) indicate that 235 patients received the original Pfizer/Biontec BNT162b2 mRNA COVID-19 Vaccine. The following developments of the Pfizer vaccine are indicated by either BA1 or BA4-5. Oxford/AstraZeneca vaccine (ChAdOx1). Moderna indicate the the Moderna COVID-19 (mRNA-1273) vaccine.

**Supplementary figure S4.** Timeline of COVID-19 vaccinations and infections in patients with autoimmune inflammatory rheumatic diseases.



Orange, blue and green lines indicate COVID-19 infection nr 1, 2 and 3, respectively. Dotted lines indicate time of vaccinations nr 1 to 6. Below the X-axis, is the predominant COVID-19 variant in Denmark at the time indicated. The pink graph in the background indicates total number of positive COVID-19 test pr day in Denmark, highest number of positive tests was 57,508 on February 7th 2022, data from (<https://covid19.ssi.dk/overvagningsdata/download-fil-med-overvaagningdata>).