

## Supplementary Document S2. First follow-up questionnaire

### Second SARS-CoV-2 vaccine administered

Comirnaty (BioNTech/Pfizer)	Spikevax (Moderna)
Vaxzevria (AstraZeneca)	COVID-19 Vaccine Janssen (Janssen-Cilag International)
Comirnaty (BioNTech/Pfizer) and flu vaccination	Spikevax (Moderna) and flu vaccination
Vaxzevria (AstraZeneca) and flu vaccination	COVID-19 Vaccine Janssen (Janssen-Cilag International) and flu vaccination

### Second vaccination date

Date:	__/__/__ (TT.MM.JJJJ)
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### SARS-CoV-2 infections following the SARS-CoV-2 vaccination

Did you have a confirmed SARS-CoV-2 infection following the vaccination?	Yes, following the first vaccination	Yes, following the second vaccination	No
If yes:			
Which test was conducted?			
PCR test		Antigen Test	
Antibody test		Unknown	
Please indicate the onset of SARS-CoV-2 infection:		__/__/__ (MM.JJJJ)	
What symptoms did you experience?			
Increased temperature		Cough	
Lassitude		Joint, bone or muscle pain	
Headache		Sore throat	
Shortness of breath		Blocked nose	
Chills		Loss of smell or taste	
Pneumonia		Other: _____	
For the treatment you were:			
Admitted as an inpatient in a hospital			
Admitted to hospital as an inpatient and treated in intensive care for at least one day.			
Treated at home.			
If they have been admitted to a hospital:			
How many days were you admitted to hospital?		_____	
Were you connected to a (ventilated) respirator or did you receive oxygen therapy during your inpatient stay?			
Non-invasive treatment		Invasive treatment	
		No ventilation	
<u>Non-invasive ventilation:</u> respiratory support or ventilation without invasive ventilation access, for example via a mask placed over the mouth and nose. <u>Invasive ventilation:</u> Placement of a breathing tube inserted through the mouth or nose to serve as an artificial airway.			
How many days were you ventilated?		_____	
Do you still suffer from concomitant symptoms after your SARS-CoV-2 infection?		Yes	No
If so, which symptoms do you still suffer from?			
Increased temperature		Cough	
Lassitude		Joint, bone or muscle pain	
Headache		Sore throat	
Shortness of breath		Blocked nose	

Chills	Loss of smell or taste
Pneumonia	Other: _____

**If you had a confirmed SARS-CoV-2 infection after vaccination:**

In the following, only symptoms or their changes are asked for which clearly cannot be related to a SARS-CoV-2 infection, because they occurred chronologically before this infection.

Vaccination reactions

Did you experience any vaccination reactions in connection with the second vaccination?	
Yes	No
Please select the information below that applies to you.	
<input type="checkbox"/> <b>Emesis / vomitus</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Rash / exanthema</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Swollen lymph nodes / lymphadenopathy</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Palpitation / tachycardia</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Local reaction</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Malaise</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Melalgia / limb pain</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Nausea</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Asthenia</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Vertigo</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Pain at the injection area</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Muscular pain / myalgia</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Flu-like symptoms</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Fatigue</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Ague / undulant fever</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Headache</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Fever / pyrexia</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent
<input type="checkbox"/> <b>Other</b> , occurred after ____ days	
<input type="radio"/> Subsided after ____ days	<input type="radio"/> Still persistent

## New-onset MS symptoms

Did you experience any new MS symptoms in connection with the second vaccination?	
Yes	No
Please select the information below that applies to you.	
<b>Impaired walking impairment</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Spasticity</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Movement disorders / ataxia / tremor</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Fatigue</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Pain</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Bladder dysfunction / impaired micturition</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Bowel dysfunction / impaired defecation</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Sexual disorders</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Cognitive disorders</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Depression</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Eye movement disorders / oculomotor disorders</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Speaking and voice disorders / dysarthria / dysphonia</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Swallowing disorders / dysphagia</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Epileptic seizures</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Palsy / paresis</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Optic nerve inflammation / optic neuritis</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Other seizure-like symptoms / paroxysms</b> , occurred after ____ days	Still persistent
Subsided after ____ days	

## Worsened MS symptoms

Have you experienced any worsening of MS symptoms in relation to the second vaccination?	
Yes	No
Please select the information below that applies to you.	
<b>Impaired walking impairment</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Spasticity</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Movement disorders / ataxia / tremor</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Fatigue</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Pain</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Bladder dysfunction / impaired micturition</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Bowel dysfunction / impaired defecation</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Sexual disorders</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Cognitive disorders</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Depression</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Eye movement disorders / oculomotor disorders</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Speaking and voice disorders / dysarthria / dysphonia</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Swallowing disorders / dysphagia</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Epileptic seizures</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Palsy / paresis</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Optic nerve inflammation / optic neuritis</b> , occurred after ____ days	Still persistent
Subsided after ____ days	
<b>Other seizure-like symptoms / paroxysms</b> , occurred after ____ days	Still persistent
Subsided after ____ days	

## Relapses following the second vaccination

Did you experience MS attacks after the second vaccination?	Yes	No
A relapse is characterised by the appearance of new symptoms or the worsening of existing symptoms that last longer than 24 hours. These symptoms can vary greatly and usually develop within a few hours or days. After the relapse, the symptoms may decrease or disappear completely, depending on the course of the disease. To be able to assume that there is another relapse, there must be at least 30 consecutive days between relapses.		
If yes:		
How many relapses occurred?		
Have you received a steroid therapy in connection with these MS relapses?	Yes	No

## Patient-determined disease steps (PDDS)

Please read the choices below and choose the one that describes your own situation most appropriately.

This scale focuses mainly on how well you can **walk**.

*You may not find a description that accurately reflects your condition, but please mark the category that describes your situation most closely.*

Please choose one of the following answers:	
<b>0 Normal</b> I may have some mild symptoms, mainly sensory due to my MS, but they do not limit my activity. When I have an episode, I return to normal as soon as the relapse is over.	
<b>1 Mild disability</b> I have some noticeable symptoms due to my MS, but they are minor and have a small impact on my lifestyle.	
<b>2 Moderate disability</b> I have no limitations in my ability to walk. However, I have significant problems due to MS that limit daily activities in other ways.	
<b>3 Walking impairment</b> MS affects my activities, especially walking. I can work all day but sporting or physically demanding activities are more difficult than before. Normally I do not need a walking stick or other aids to walk, but I might need some help during a relapse.	
<b>4 Occasional use of a walking aid (walking stick use)</b> I use a walking stick, a single crutch or some other form of support (e.g., touching a wall or leaning on someone's arm) to walk all or part of the time, especially when I walk outdoors. I think I can walk 8 metres in 20 seconds without a walking stick or crutch. I always need some help (walking stick or crutch) when I want to walk up to 300 metres.	
<b>5 Walking aid dependency</b> To walk 8 metres, I need a walking stick, a crutch or someone to hold on to. I can move around the house or other buildings by holding onto furniture or touching the walls to support myself. I can use a scooter or wheelchair if I want to travel longer distances.	
<b>6 Bilateral support</b> To walk up to 8 metres, I need two walking sticks or crutches or a rollator. For longer distances I can use a scooter or wheelchair.	
<b>7 Wheelchair</b> My main form of mobility is a wheelchair. I may be able to stand and/or take a step or two, but I cannot walk 8 metres, even with crutches or a rollator.	
<b>8 Bedriddenness</b> I cannot sit in a wheelchair for more than an hour.	