

Supplementary Table 1.

Characteristics of patients who a) were potentially eligible, b) were invited in E-boks*, c) were invited and did not complete questionnaire, and d) completed questionnaire

| Patient characteristics | | a) Potentially eligible for inclusion [§] N=36,152 | b) Had access to E-boks* and received invitation N=32,766 | c) Had access to E-boks and did not complete questionnaire N=19,977 | d) Completed questionnaire N=12,789 |
|---|--------|--|--|--|--|
| Gender, n (%) | Female | 23167 (64) | 20651 (63) | 12285 (61) | 8366 (65) |
| Age, years, n (%) | ≤39 | 4878 (13) | 4840 (15) | 3844 (19) | 996 (8) |
| | 40-59 | 12574 (35) | 12281 (37) | 7845 (39) | 4436 (35) |
| | 60-79 | 16115 (45) | 14226 (43) | 7427 (37) | 6799 (53) |
| | ≥80 | 2585 (7) | 1419 (4) | 861 (4) | 558 (4) |
| Diagnosis, n (%) | RA | 21754 (60) | 18985 (58) | 10817 (54) | 8168 (64) |
| | PsA | 6112 (17) | 5766 (18) | 3698 (19) | 2068 (16) |
| | AxSpA | 5718 (16) | 5573 (17) | 3815 (19) | 1758 (14) |
| | Other | 2568 (7) | 2442 (7) | 1647 (8) | 795 (6) |
| [§] Patients in DANBIO with at least one visit during the previous year; * E-boks: secure electronic communication between authorities and individual citizens. Abbreviations: AxSpA: axial spondyloarthritis; IQR: interquartile range; PsA: psoriatic arthritis; RA: rheumatoid arthritis | | | | | |

Supplementary Table 2. Data completeness

Included patients with available baseline data shown as percentages, %
Stratified by diagnosis. N=12,789

| | Rheumatoid arthritis N=8,168 | Psoriatic arthritis N=2,068 | Axial spondyloarthritis N=1,758 | Other N=795 |
|---|---|--|--|------------------------|
| Gender | 100 | 100 | 100 | 100 |
| Age, years | 100 | 100 | 100 | 100 |
| Information captured from the COVID-19 questionnaire: Self-reported characteristics | | | | |
| Lives alone | 100 | 100 | 100 | 100 |
| Highest education | 99 | 100 | 99 | 100 |
| Occupational status | 100 | 100 | 100 | 100 |
| Comorbidities | 94 | 93 | 92 | 92 |
| PASS | 99 | 99 | 99 | 99 |
| HAQ | 100 | 100 | 99 | 99 |
| Patient global, VAS, mm | 100 | 99 | 100 | 100 |
| EQ-5D | 97 | 97 | 98 | 93 |
| Information captured from DANBIO: Patient- and disease characteristics | | | | |
| Rheumatic diagnosis | 100 | 100 | 100 | 100 |
| Smoking status | 99 | 99 | 99 | 95 |
| Year of diagnosis | 94 | 89 | 92 | 70 |
| Current medication | 100 | 100 | 100 | 100 |
| Abbreviations: , EQ-5D: European Quality of life, 5 dimensions; HAQ: health assessment questionnaire; PASS: patient acceptable symptom state; VAS: visual analogue scale | | | | |

Supplementary Table 3. Contacts and care for rheumatic disease, impact of the COVID-19 pandemic up until June 2020.

Percentages are shown according to all patients included (N=12,789) unless otherwise stated

| Question | Answering options | Reply, n (%) |
|--|---|--------------|
| Did you in March or April 2020 contact the clinic in one of the following ways (>1 answer allowed), n (%) | Phone | 5257 (41) |
| | E-mail | 473 (4) |
| | Video-consultation | 20 (0) |
| | Consultation in clinic | 2852 (22) |
| | Other* | 894 (7) |
| | No | 4501 (35) |
| | Missing/no answer | 145 (1) |
| Did you within the last 30 days contact the clinic in one of the following ways (>1 answer allowed), n (%) | Phone | 3281 (26) |
| | E-mail | 368 (3) |
| | Video-consultation | 8 (0) |
| | Consultation in clinic | 1876 (15) |
| | Other | 616 (5) |
| | No | 7050 (55) |
| | Missing/no answer | 306 (2) |
| Did the Corona pandemic cause cancelling/delay of a scheduled appointment related to your arthritis (until March 2020), n (%) | Yes | 3932 (31) |
| | No | 7827 (61) |
| | Do not know | 1002 (8) |
| | Missing/no answer | 28 (0) |
| If yes to cancelling/delay (n=3932), which appointment (>1 answer allowed) ⁵ , n (%) | Physician | 2618 (67) |
| | Nurse | 786 (20) |
| | Medical infusion therapy | 87 (2) |
| | Medication hand-out at dept of rheumatology | 352 (9) |
| | X-ray etc. | 342 (9) |
| | Medical aids | 16 (0) |
| | Blood sampling | 649 (17) |
| | Surgery | 72 (2) |
| | Physiotherapy | 687 (17) |
| | Occupational therapist | 30 (1) |
| | Other | 934 (24) |
| My access to counselling with my rheumatologist became (until March 2020), n (%) | Better | 108 (1) |
| | Unchanged | 6060 (47) |
| | Worse | 857 (7) |
| | Do not know | 3100 (24) |
| | Not relevant | 2611 (20) |
| | Missing | 53 (0) |
| My options for treatment of my rheumatic disease became (until March 2020), n (%) | Better | 78 (1) |
| | Unchanged | 6637 (52) |
| | Worse | 905 (7) |
| | Do not know | 2661 (21) |
| | Not relevant | 2382 (19) |
| | Missing | 126 (0) |
| Have you required additional information regarding your arthritis during the corona-lock down? | Yes* | 4856 (38) |
| | No | 7640 (60) |
| | Do not know | 268 (2) |
| | Missing/no answer | 25 (0) |
| ⁵ Percentage of 'yes' to cancelling/delay of scheduled appointment, summed percentages exceed 100% because >1 answer was allowed per patient | | |
| * If yes, who did you contact (>1 answer allowed): rheumatology clinic (N=2408/4856, 50%), other hospital department (133, 3%), general practitioner (1262, 26%), Danish Arthritis Association (1588, 33%), COVID-19 hotline (569, 12%), Other (1473, 30%) | | |

Supplementary Table 4. Self-isolation strategies, March 2020.

Percentages are shown according to all patients included (N=12,789) unless otherwise stated

| Question | Answering options | Reply, n (%) |
|---|----------------------------------|--------------|
| How would you describe your situation? n (%) | Life went on as usual | 761 (6) |
| | Life went on with slight changes | 4347 (34) |
| | Life went on with major changes | 4784 (37) |
| | Isolation at hospital or other | 30 (0) |
| | Self-isolation (at home) | 2765 (22) |
| | Other | 69 (1) |
| | Missing | 33 (0) |
| How many persons were you typically in contact with per day (>2 m distance)? n (%) | None | 1807 (14) |
| | 1-5 | 8881 (70) |
| | 6-10 | 1090 (9) |
| | 11-20 | 553 (4) |
| | 21-50 | 292 (2) |
| | >50 | 132 (1) |
| | Missing | 34 (0) |
| How many persons were you typically in face-to-face contact with per day (<2 m distance)? n (%) | None | 3365 (26) |
| | 1-5 | 8542 (67) |
| | 6-10 | 474 (4) |
| | 11-20 | 196 (2) |
| | 21-50 | 81 (1) |
| | >50 | 53 (0) |
| | Missing | 78 (1) |
| Did you leave the home for shopping? n (%) | Yes | 9039 (71) |
| | No | 3688 (29) |
| | Do not know | 31 (0) |
| | Missing | 31 (0) |
| If yes to above (n=9039), how often did you leave home for shopping? n (%) | Several times a day | 152 (2) |
| | Once a day | 1104 (12) |
| | Several times a week | 3748 (41) |
| | Once a week | 3652 (40) |
| | Less than weekly | 381 (4) |
| | Missing/not relevant | 2 (0) |
| Did you change your physical shopping habits? n (%) | Yes, shopped less frequently | 5745 (45) |
| | Yes, shopped more frequently | 817 (6) |
| | Shopped on-line | 1055 (8) |
| | Others shopped for me | 2690 (21) |
| | No | 2313 (18) |
| | Do not know | 137 (1) |
| | Missing | 32 (0) |
| Did you use public transportation? n (%) | Yes | 470 (4) |
| | No | 12255 (96) |
| | Do not know | 32 (0) |
| | Missing | 32 (0) |
| If you used public transportation (n=470), how often? n (%) | Several times a day | 69 (15) |
| | Once a day | 32 (7) |
| | Several times a week | 89 (19) |
| | Once a week | 88 (19) |
| | Less than weekly | 190 (41) |
| | Missing | 2 (0) |

Supplementary Table 5. Self-perceived impact of the COVID-19 situation, March and June 2020

Total N=12,789

| Question | Reply, n | | | | | | |
|---|------------------|--------------|-------------|-----------------|---------------------|-------------|-----------|
| | Completely agree | Mostly agree | Neither nor | Mostly disagree | Completely disagree | Do not know | Missing\$ |
| The early stage of the pandemic before Easter, March 2020, n (%) | | | | | | | |
| I considered myself at high risk of COVID-infection | 6527 (51) | 3032 (24) | 1368 (11) | 540 (4) | 767 (6) | 520 (4) | 35 (-) |
| I considered some of my close relatives at high risk | 5873 (46) | 2510 (20) | 1502 (12) | 605 (5) | 1364 (11) | 875 (7) | 60 (-) |
| I was very worried to get COVID-19 infection | 5435 (43) | 3464 (27) | 1896 (15) | 933 (7) | 823 (6) | 203 (2) | 35 (-) |
| I worried more about COVID-19 than about my rheumatic disease | 3167 (25) | 2885 (23) | 3185 (25) | 1027 (8) | 2162 (17) | 319 (3) | 44 (-) |
| My worry about COVID-19 caused me to cancel health-contacts/appointments for arthritis* | 1226 (10) | 690 (5) | 2031 (16) | 528 (4) | 7179 (56) | 1062 (8) | 73 (-) |
| I tried to keep social distance (avoided groups of persons) | 10800 (85) | 1458 (11) | 278 (2) | 106 (1) | 79 (1) | 50 (0) | 18 (-) |
| I stayed home and avoided others as much as possible | 8032 (63) | 2985 (23) | 655 (5) | 444 (3) | 592 (5) | 41 (0) | 40 (-) |
| I used gloves during e.g. social activities, shopping | 5107 (40) | 2107 (17) | 1376 (11) | 642 (5) | 3214 (25) | 264 (2) | 79 (-) |
| I used hand-disinfection during e.g. social activities, shopping | 11423 (90) | 871 (7) | 160 (1) | 69 (1) | 138 (1) | 74 (1) | 54 (-) |
| I used facial mask during social activities | 575 (5) | 428 (3) | 1446 (11) | 448 (4) | 9422 (74) | 354 (3) | 116 (-) |
| I did nothing specific to protect myself | 657 (5) | 1039 (8) | 799 (6) | 1677 (13) | 8334 (66) | 194 (2) | 89 (-) |
| My arthritis caused me to self-isolate myself more than others my age | 3624 (28) | 2584 (20) | 2281 (18) | 783 (6) | 2926 (23) | 554 (4) | 37 (-) |
| My arthritis caused me to worry more about my health than others the same age | 3797 (30) | 3120 (25) | 2090 (16) | 862 (7) | 2336 (18) | 518 (4) | 66 (-) |
| Current stage of the pandemic (the last 7 days), June 2020, n (%) | | | | | | | |
| I consider myself at high risk of COVID-infection | 4280 (34) | 3578 (29) | 2048 (16) | 889 (7) | 1253 (10) | 383 (3) | 358 (-) |
| I worry about re-opening of the society | 1222 (10) | 3599 (29) | 2976 (24) | 1794 (14) | 2486 (20) | 343 (3) | 369 (-) |
| I am very worried to get COVID-19 infection | 2324 (19) | 3320 (27) | 2787 (22) | 1851 (15) | 1877 (15) | 274 (2) | 356 (-) |
| I worry more about COVID-19 than about my rheumatic disease | 1243 (10) | 2083 (17) | 3664 (30) | 1484 (12) | 3589 (29) | 323 (3) | 403 (-) |
| My worry about COVID-19 cause me to cancel health-contacts/appointments for arthritis** | 510 (4) | 620 (5) | 1755 (14) | 867 (7) | 7886 (64) | 765 (6) | 386 (-) |
| I try to keep social distance (avoid groups of persons) | 5634 (45) | 4231 (34) | 1224 (10) | 795 (6) | 469 (4) | 71 (1) | 365 (-) |
| I stay home and avoid others as much as possible | 1937 (16) | 4124 (33) | 2151 (17) | 1947 (16) | 2180 (18) | 67 (1) | 383 (-) |
| I use gloves during e.g. social activities, shopping | 2896 (23) | 2063 (17) | 1410 (11) | 921 (7) | 4863 (39) | 208 (2) | 428 (-) |
| I use hand-disinfection during e.g. social activities, shopping | 10492 (85) | 1424 (11) | 173 (1) | 90 (1) | 161 (1) | 49 (0) | 400 (-) |
| I use facial mask during social activities | 360 (3) | 444 (4) | 1338 (11) | 529 (4) | 9356 (76) | 300 (2) | 462 (-) |
| I do nothing specific to protect myself | 657 (5) | 1446 (12) | 1151 (9) | 2580 (21) | 6368 (52) | 158 (1) | 427 (-) |
| My arthritis causes me to self-isolate more than others my age | 1924 (16) | 2761 (22) | 2536 (21) | 1109 (9) | 3451 (28) | 586 (5) | 422 (-) |
| My arthritis causes me to worry more | 2326 (19) | 3271 (27) | 2296 (19) | 1103 (9) | 2666 (22) | 652 (5) | 475 (-) |

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| about my health than others the same age | | | | | | | |
| <p>*If agree, which appointments did you cancel: Physician (277), Nurse (136), Medical infusion therapy (80), Medication hand-out at dept of rheumatology (238), X-ray etc. (82), Medical aids (7), Blood sampling (595), Surgery (19), Physiotherapy (622), Occupational therapy (16), Other (942)</p> <p>** If agree, which appointments did you cancel: Physician (150), Nurse (64), Medical infusion therapy (27), Medication hand-out at dept of rheumatology (86), X-ray etc. (38), Medical aids (11), Blood sampling (218), Surgery (18), Physiotherapy (491), Occupational therapy (21), Other (684)</p> <p>\$Percentages shown do not include missing</p> | | | | | | | |

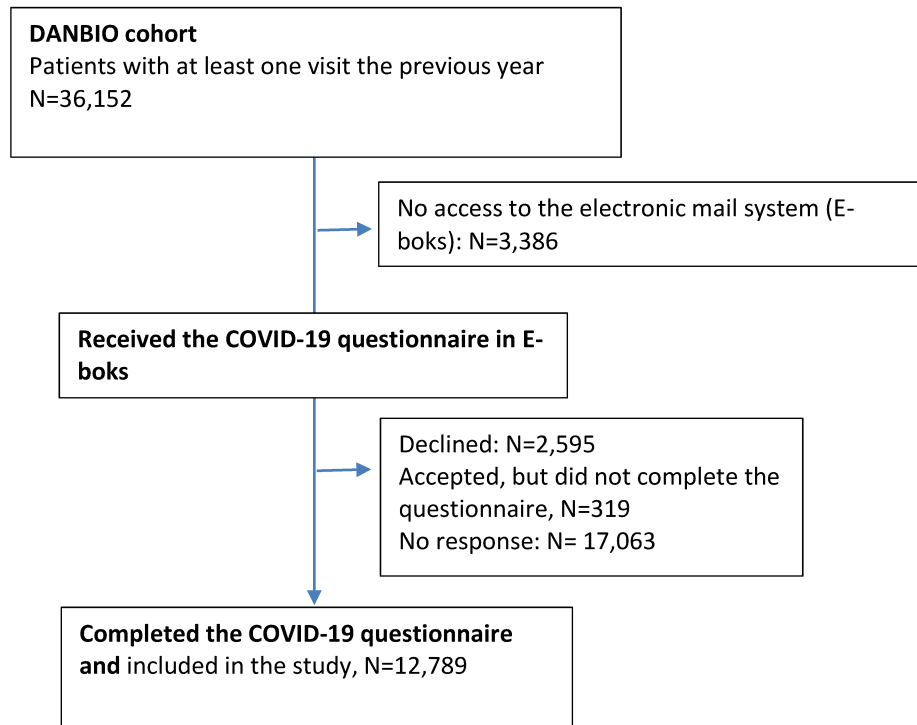
Supplementary table 6. Factors associated with anxiety and self-isolation, June 2020

Results of multivariable logistic regression analyses

| | | I am very worried to get COVID-19 infection, June N=11,288* | | My arthritis causes me to self-isolate myself more than others my age, June N=11,251* | |
|-------------------------|----------|--|------------------|--|------------------|
| | | Multivariable HR (95% CI) | p-value | Multivariable HR (95% CI) | p-value |
| Male gender | | 0.67 (0.62-0.73) | <0.001 | 0.62 (0.57-0.68) | <0.001 |
| Age, years | ≤39 | 1 (ref) | | 1 (ref) | |
| | 40-59 | 1.13 (0.96-1.33) | 0.1 | 0.93 (0.79-1.09) | 0.4 |
| | 60-79 | 1.35 (1.14-1.61) | 0.001 | 0.71 (0.59-0.84) | <0.001 |
| | ≥80 | 1.02 (0.78-1.31) | 0.9 | 0.49 (0.37-0.64) | <0.001 |
| Diagnosis | RA | 1 (ref) | | 1 (ref) | |
| | PsA | 0.95 (0.85-1.06) | 0.4 | 1.04 (0.93-1.16) | 0.5 |
| | AxSpA | 0.90 (0.79-1.03) | 0.1 | 0.96 (0.84-1.10) | 0.6 |
| | Other | 1.03 (0.87-1.22) | 0.7 | 1.11 (0.93-1.32) | 0.3 |
| Lower education, yes | | 1.17 (1.08-1.27) | <0.001 | 0.92 (0.85-1.00) | 0.04 |
| Working, yes** | | 0.87 (0.79-0.96) | 0.005 | 0.78 (0.71-0.87) | <0.001 |
| Cohabitant, yes | | 1.05 (0.95-1.16) | 0.3 | 0.91 (0.82-1.00) | 0.06 |
| Use of bDMARD, yes | | 1.49 (1.31-1.70) | <0.001 | 2.06 (1.79-2.36) | <0.001 |
| Use of csDMARD, yes | | 1.00 (0.88-1.15) | 0.9 | 1.18 (1.02-1.36) | 0.02 |
| PASS, yes, | | 1.02 (0.92-1.13) | 0.7 | 1.12 (1.01-1.25) | 0.03 |
| Number of comorbidities | 0 | 1 (ref) | | 1 (ref) | |
| | 1 | 1.28 (1.17-1.40) | <0.001 | 1.22 (1.10-1.34) | <0.001 |
| | ≥2 | 1.65 (1.49-1.83) | <0.001 | 1.44 (1.29-1.60) | <0.001 |
| Smoking status | Current | 1 (ref) | | 1 (ref) | |
| | Previous | 0.80 (0.71-0.89) | <0.001 | 0.87 (0.77-0.98) | 0.03 |
| | Never | 0.82 (0.74-0.91) | <0.001 | 0.91 (0.82-1.02) | 0.1 |
| Q5D, anxiety | | 0.15 (0.11-0.20) | <0.001 | 0.053 (0.039-0.072) | <0.001 |

Statistically significant results are shown with bold types
*Numbers show patients with available data for multivariable analyses
**Status before corona lock-down
Abbreviations: AxSpA: axial spondyloarthritis, bDMARD: biologic disease modifying agent, csDMARD: conventional synthetic DMARD, EQ-5D: European Quality of life, 5 dimensions, PsA: psoriatic arthritis, RA: rheumatoid arthritis

Supplementary Figure 1. Patient disposition



Supplementary Figure 2. Histogram showing the date of completing the COVID-19 questionnaire

X-axis: date (yyyymmdd), Y-axis: number of respondents. N=12,789

