**Supplemental Table 1.** Clinical characteristics of RMD participants stratified by vaccine type (mRNA or J&J)

| | **mRNA (n=994)** | **J&J (n=45)** | **p-value** |
|---|---|---|---|
| Age, median (IQR) | 46.3 (37, 58) | 47.3 (41, 56) | 0.47 |
| Male sex, no. (%) | 58 (5.8%) | 6 (13.3%) | 0.08 |
| Days from D2 to testing, median (IQR) | 29.0 (28.0, 33.0) | 29.0 (28.0, 32.0) | 0.81 |
| Non-white, no. (%) | 104 (10.5%) | 1 (2.2%) | 0.25 |
| Diagnosis, no. (%) | | | 0.23 |
| Inflammatory arthritis [1] | 442 (44.5%) | 19 (42.2%) | |
| Overlap connective tissue disease[2] | 213 (21.5%) | 7 (15.5%) | |
| Systemic lupus erythematosus | 206 (20.7%) | 10 (22.2%) | |
| Sjögren's syndrome | 49 (4.9%) | 7 (15.5%) | |
| Myositis | 53 (5.3%) | 1 (2.2%) | |
| Vasculitis[3] | 21 (2.1%) | 1 (2.2%) | |
| Systemic sclerosis | 10 (1%) | 0 (0%) | |
| Therapy included in regimen, no. (%)[4] | | | |
| Azathioprine | 77 (7.7%) | 1 (2.2%) | 0.36 |
| Hydroxychloroquine | 414 (41.6%) | 16 (35.5%) | 0.42 |
| Leflunomide | 47 (4.7%) | 4 (8.8%) | 0.13 |
| Methotrexate | 255 (25.7%) | 12 (26.6%) | 0.85 |
| Tacrolimus | 15 (1.5%) | 1 (2.2%) | 0.46 |
| Mycophenolate | 145 (14.6%) | 4 (8.8%) | 0.64 |
| Abatacept | 38 (3.8%) | 1 (2.2%) | >0.9 |
| Belimumab | 114 (11.5%) | 6 (13.3%) | 0.80 |
| Interleukin inhibitor [5] | 67 (6.7%) | 2 (4.4%) | >0.9 |
| Rituximab | 58 (5.8%) | 4 (8.8%) | 0.29 |

| | | | |
|---|---|---|---|
| TNF inhibitor | 239 (24.0%) | 9 (20.0%) | 0.71 |
| Tofacitinib | 62 (6.2%) | 2 (4.4%) | >0.9 |
| Glucocorticoids [6] | 295 (29.7%) | 10 (22.2%) | 0.38 |
| Immunomodulatory [7] | 47 (4.7%) | 1 (2.2%) | >0.9 |
| Combination therapy[8] | 517 (52.0%) | 19 (42.2%) | 0.59 |

**1** Rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis, reactive arthritis, or inflammatory bowel disease associated arthritis

**2** Denotes a combination of two or more of the rheumatic conditions

**3** Polyarteritis nodosa, Behcet's syndrome, polymyalgia rheumatica, temporal arteritis, eosinophilic granulomatosis polyangiitis, granulomatous polyangiitis, Henoch-Schonlein purpura, microscopic polyangiitis, or Takayasu arteritis

**4** Participants could select more than 1 option thus sum is greater than 100%

**5** Interleukin inhibitors include ixekizumab, secukinumab, tocilizumab and ustekinumab.

**6** Glucocorticoids includes prednisone and prednisone equivalents.

**7** Immunomodulatory includes intravenous immunoglobulin (IVIg) and subcutaneous Immunoglobulin (SCIg).

**8** Denotes a combination of conventional DMARD, biologic, corticosteroid, or immunomodulatory therapy