Table s4l. Included studies for Recommendation 14

<table>
<thead>
<tr>
<th>Study</th>
<th>Inclusion criteria</th>
<th>Autoimmune Disease Group</th>
<th>No Autoimmune Disease</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pablos 2020&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Inclusion: Hospital PCR+ COVID-19 rheumatic patients matched by age, sex, and PCR date to non-rheumatic controls (randomly sampled 1:1)</td>
<td>n = 228</td>
<td>n = 228</td>
<td>Death: 41 vs 30</td>
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<td></td>
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<td>Age: M 63 (IQR 54-78)</td>
<td>Age: M 65 (IQR 53-77)</td>
<td>ICU: 15 vs 16</td>
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<td></td>
<td></td>
<td>Gender: 87 males</td>
<td>Gender: 95 males</td>
<td>Hospitalization: 162 vs 175</td>
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<td>Treatments: steroids 91 (dose &gt;10 15), MTX 64, antimalarial 28, leflunomide 20, sulfasalazine 17, MMF 12, azathioprine 7, cyclophosphamide 2, calcineurin 7, TNF inhibitor 35, rituximab 5, IL 17/IL 23 antagonist 4, abatacept 3, tocilizumab 2, sarilumab 1, tofacitinib 3</td>
<td></td>
<td>NIPPV: 11 vs 13</td>
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<td>Comorbidities: 71 obesity, 46 DM, 111 HTN, 64 CVD, 45 lung disease</td>
<td></td>
<td>Significant complications (subcategories of heart failure, encephalopathy, thrombotic event, kidney failure, septic shock): 63 vs 55</td>
</tr>
</tbody>
</table>

In asymptomatic patients with autoimmune disease, should testing vs. no testing for SARS-CoV-2 be performed before initiation of immunosuppressive therapy?
### Silva 2020²

**MGH and BWH Boston, USA**

Retrospective observational study

**Time:** 1/30 – 4/8

**Inclusion:** age >17, positive PCR.

Identified patients with rheumatic diseases and matched them to patients with not rheumatic diseases (1:2 ratio, based on date of PCR, age, sex)

<table>
<thead>
<tr>
<th>n = 54</th>
<th>n = 104</th>
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<tbody>
<tr>
<td><strong>Age:</strong> m 62.5 ± 15.1</td>
<td><strong>Age:</strong> m 63.1 ± 14.9</td>
</tr>
<tr>
<td><strong>Gender:</strong> 39 females</td>
<td><strong>Gender:</strong> 72 females</td>
</tr>
<tr>
<td><strong>Disease:</strong> 19 RA, 10 SLE, 7 PMR, 7 seronegative SpA, 3 myositis, 1 GCA, 2 small vessel vasculitis, 1 sarcoidosis, 1 JIA, 1 Kikuchi’s disease</td>
<td><strong>Comorbidities:</strong> 20 former smoker, 6 current smoker, 50 HTN, 29 DM, 10 CAD, 11 CHF, 17 asthma, 7 COPD, 4 OSA</td>
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<tr>
<td><strong>Treatments:</strong> 9 HCQ, 7 anti-TNF, 1 IL-6 inhibitor, 2 belimumab, 3 rituximab, 2 IL-12/IL-23 inhibitor, 1 abatacept, 3 tofacitinib, 9 MTX, 4 leflunomide, 3 MMF, 5 prednisone</td>
<td><strong>Comorbidities:</strong> 20 former smokers, 2 current smokers, 34 HTN, 13 DM, 12 CAD, 4 CHF, 3 ILD, 14 asthma, 2 COPD, 7 OSA</td>
</tr>
</tbody>
</table>

**Death:** 3/52 vs 4/104

**ICU:** 11/52 vs 7/104

**Supplemental O2:** 17/52 vs. 26/104

**Hospitalization:** 23/52 vs 42/104

**Association of rheumatic disease with:**

- **hospitalization:** aOR1 (age and BMI) 1.27 (0.61-2.6), aOR2 (age, BMI, smoking, #comorbidities) 1.22 (0.56-2.6) and aOR3 (age, HTN, CAD, lung disease) 1.1 (0.5-2.4)
- **MV/ICU:** aOR1 (age and BMI) 3.3 (1.2-9.1), aOR2 (age, BMI, smoking, #comorbidities) 3.1 (1.1-9.1) and aOR3 (age, HTN, CAD, lung disease) 2.9 (1.0-8.5)
- **death:** aOR1 (age and BMI) 1.6 (0.3-8.03)

### Outcome of COVID in IBD

**Lukin 2020³**

**Inclusion:** All confirmed or highly likely

<table>
<thead>
<tr>
<th>n = 80</th>
<th>n = 160</th>
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<td><strong>Age:</strong> m 48.3 ± 18.3</td>
<td><strong>Age:</strong> m 48.7 ± 17.7</td>
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</table>

**Hospitalization:** 17 vs 34

**Death:** 0 vs 2
| NYU Presbyterian Hospital-Weill Cornell Medical Center | suspected COVID-19 patients at the hospital. Patients with IBD were matched with patients without IBD based on decade of age and gender (1:2) | Gender: 45 males  
Diseases: IBD  
Treatments: 10 steroids, 22 immunosuppressants  
Comorbidities: 14 HTN, 4 DM, 5 CKD, 5 CVD, 2 COPD, 9 cancer, 5 chronic liver disease, 1 solid organ transplant | Gender: 90 males  
Comorbidities: 38 HTN, 20 DM, 7 CKD, 10 CVD, 19 COPD, 4 cancer, 2 chronic liver disease, 1 solid organ transplant | MV 2 vs 11  
ICU 3 vs 11 |
| San Donato Hospital | Inclusion: adult patients, moderate to severe plaque psoriasis for more than 1 year, approved anti-psoriasis monotherapy (biologics or small molecules), being in the maintaining phase. The control | n = 1,193  
Age: m 55  
Gender: 68% males  
Diseases: moderate/severe plaque psoriasis  
Treatments: 262 anti-TNF, 238 anti-IL12/23, 542 anti-IL17, 62 anti-IL23, 89 small molecules  
Comorbidities: 215 obesity, 167 CVD, 346 HTN, 143 DM, 197 COPD, 53 OSA, 298 PsA | n = 10,060,574  
Age: m 65  
Gender: 48.9% males  
Comorbidities: NR | COVID-19 22 vs 54,901  
Patients on biologics were at higher risk of developing COVID-19 (uOR 3.4, 2.3-5.7)  
Home quarantine 17 vs 16,042 (OR 9.1, 5.6-14.6)  
Hospitalization 5 vs 11,796  
Risk of ICU admission (uOR 3.4, 0.2-54.6)  
Death 0 vs 10,222 (uOR 0.4, 0.03-6.6). |
n, number of patients; m, mean; M, median; IQR, interquartile range; RA, rheumatoid arthritis; SpA, spondyloarthritis; SLE, systemic lupus erythematosus; CTD, connective tissue disease; PsA, psoriatic arthritis; PMR, polymyalgia rheumatica; GCA, giant cell arteritis; HCQ, hydroxychloroquine; MTX, methotrexate; AZA, azathioprine; TNF, tumor necrosis factor; DM, diabetes mellitus; HTN, hypertension; CVD, cardiovascular; CAD, coronary artery disease; CHF, congestive heart failure; OSA, obstructive sleep apnea; IBD, inflammatory bowel disease; MMF, mycophenolate; NIPPV, non-invasive positive pressure ventilation; MV, mechanical ventilation; ICU, intensive care unit admission; ILD, interstitial lung disease; NR, not reported; OR, odds ratio; uOR, unadjusted odds ratio; aOR, adjusted odds ratio.

References