Supplementary file 1

Supplementary figure 1- Density plots of imputed datasets; Blue represents original dataset; other colours are individual imputed datasets (n=15)
<table>
<thead>
<tr>
<th>Covariate:</th>
<th>Means Treated</th>
<th>Means Control</th>
<th>Standard Deviation</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Propensity Score</td>
<td>0.42297940</td>
<td>0.53935303</td>
<td>0.1449627</td>
<td>-0.1163550897</td>
</tr>
<tr>
<td>Female</td>
<td>36.3782051</td>
<td>45.026178</td>
<td>0.4979547</td>
<td>-8.64707288</td>
</tr>
<tr>
<td>Male</td>
<td>63.6217949</td>
<td>54.973822</td>
<td>0.4979547</td>
<td>8.64797288</td>
</tr>
<tr>
<td>Age</td>
<td>63.796474359</td>
<td>66.19022688</td>
<td>0.5893357</td>
<td>-23.937525171</td>
</tr>
<tr>
<td>Comorbidity- Yes</td>
<td>76.1217949</td>
<td>84.467714</td>
<td>0.3625287</td>
<td>-8.34591892</td>
</tr>
<tr>
<td>Ethnicity- South Asian</td>
<td>6.5705128</td>
<td>6.831763</td>
<td>0.2490539</td>
<td>-0.6124983</td>
</tr>
<tr>
<td>Ethnicity- Black</td>
<td>16.1858974</td>
<td>11.518325</td>
<td>0.3195219</td>
<td>4.66757283</td>
</tr>
<tr>
<td>Ethnicity- Mixed</td>
<td>0.9615385</td>
<td>1.396161</td>
<td>0.1174340</td>
<td>-0.06124983</td>
</tr>
<tr>
<td>Ethnicity- Other</td>
<td>18.9102564</td>
<td>13.263525</td>
<td>0.3394765</td>
<td>5.64673110</td>
</tr>
<tr>
<td>Ethnicity- White</td>
<td>46.6346154</td>
<td>57.766143</td>
<td>0.4943635</td>
<td>-11.13152772</td>
</tr>
<tr>
<td>Respiratory Rate</td>
<td>29.214743590</td>
<td>24.01745201</td>
<td>7.2639816</td>
<td>5.1972915828</td>
</tr>
</tbody>
</table>

**Supplementary table 1** - Means of data before multiple imputation and propensity score matching

<table>
<thead>
<tr>
<th>Type</th>
<th>Minimum Difference Adjusted</th>
<th>Mean Difference Adjusted</th>
<th>Maximum Difference Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>0.016988</td>
<td>0.027107</td>
<td>0.040963</td>
</tr>
<tr>
<td>Sex = Male</td>
<td>-0.03917</td>
<td>-0.0028</td>
<td>0.015982</td>
</tr>
<tr>
<td>Age</td>
<td>-0.04586</td>
<td>-0.01371</td>
<td>0.027589</td>
</tr>
<tr>
<td>Comorbidity = Yes</td>
<td>-0.02331</td>
<td>-0.00778</td>
<td>0.004598</td>
</tr>
<tr>
<td>Ethnicity = Other Asian</td>
<td>-0.01392</td>
<td>0.002362</td>
<td>0.016471</td>
</tr>
<tr>
<td>Ethnicity = South Asian</td>
<td>-0.01399</td>
<td>-0.00136</td>
<td>0.011905</td>
</tr>
<tr>
<td>Ethnicity = Black</td>
<td>-0.01852</td>
<td>0.000443</td>
<td>0.015982</td>
</tr>
<tr>
<td>Ethnicity = Mixed</td>
<td>-0.00464</td>
<td>0.001403</td>
<td>0.007042</td>
</tr>
<tr>
<td>Ethnicity = Other</td>
<td>-0.01152</td>
<td>4.30E-06</td>
<td>0.00939</td>
</tr>
<tr>
<td>Ethnicity = White</td>
<td>-0.02353</td>
<td>-0.00285</td>
<td>0.018433</td>
</tr>
<tr>
<td>Respiratory Rate</td>
<td>-0.06157</td>
<td>-0.03478</td>
<td>-0.00442</td>
</tr>
</tbody>
</table>

**Supplementary table 2** - Balance summary across imputations

<table>
<thead>
<tr>
<th>XR- Negative</th>
<th>XR- Positive</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>573</td>
<td>625</td>
</tr>
<tr>
<td>Matched</td>
<td>430</td>
<td>430</td>
</tr>
<tr>
<td>Unmatched</td>
<td>143</td>
<td>195</td>
</tr>
<tr>
<td>Discarded</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Supplementary table 3** - Average Sample sizes pre- and post- matching across imputed data sets
Supplementary figure 2- Density plot of propensity scores pre- and post- matching in each imputed dataset; treatment units represent a positive X-ray for COVID-19, whereas a control unit represents a negative X-ray.
Supplementary figure 3- Histogram of distributions for each matching covariate pre- and post- matching in each imputed dataset; treatment units represent a positive X-ray for COVID-19, whereas a control unit represents a negative X-ray
Supplementary figure 4- Love plot of pooled balances across imputed datasets in matching covariates after matching