Patient-level prediction #2: Amongst patients at GP presenting with virus or associated symptoms with/without pneumonia who are sent home, who are most likely to require hospitalization in next 30d?

Ross D. Williams
Erasmus MC
Background

A large proportion of patients presenting with symptoms will be sent home

Some of these patients will go on to experience disease progression

This model can act as a safety net for a clinician and reassurance for patient.
Methods

T1: Visit with COVID or Influenza or flu-like symptoms and with NO pneumonia and NO admission
T2: same as T1 except WITH pneumonia

O1: Hospitalizations with pneumonia or ARDS or sepsis or AKI requiring intensive services
O2: Hospitalizations with pneumonia or ARDS or sepsis or AKI requiring intensive services or resulting in death in 30d
TAR: 2-30d
<table>
<thead>
<tr>
<th>Analysis</th>
<th>Dev</th>
<th>Val</th>
<th>T</th>
<th>O</th>
<th>Model</th>
<th>TAR start</th>
<th>TAR end</th>
<th>AUC</th>
<th>AUPRC</th>
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<th>O Count</th>
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<td>[COVID ID14 v1] GP/OP/ER visits of patients presenting with Covid flu or flu-like symptoms with pneumonia and no admission</td>
<td>[COVID19 ID27 V1] Hospitalizations with pneumonia or ARDS or sepsis or AKI requiring intensive services or resulting in death in 30d</td>
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Preliminary results
Discussion and next steps

COVID-19 validation and external validation

Model parsimonisation

Tool creation
  – how can we best present the model for application?

Model dissemination