Uptake and Effectiveness of monoclonal antibodies and antiviral therapies for COVID-19 in Scotland

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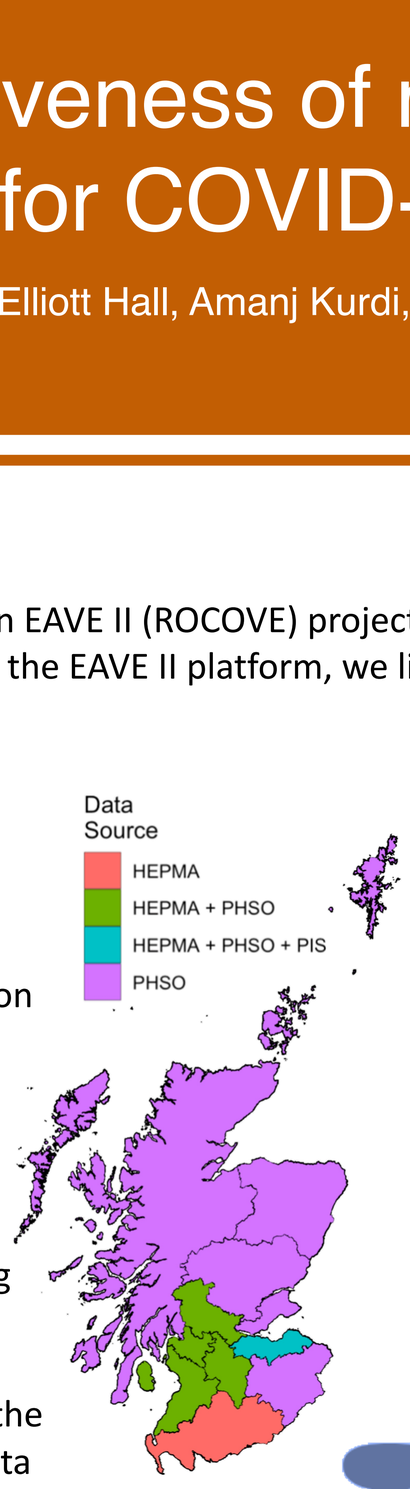
Project ROCOVE

The Rapid Outcomes of COVid therapeutics in EAVE II (ROCOVE) project began in January 2022, to monitor the use and ongoing effectiveness of COVID-19 treatments being used in Scotland. Using the EAVE II platform, we linked health data from primary care, secondary care, deaths, vaccinations, SARS-CoV-2 tests, and COVID-19 treatments.

1 Therapeutics Data

Our first challenge was collecting data on the prescription and administration of COVID-19 therapeutics throughout Scotland, as there was no standard reporting system across Health Boards.

Six Boards used the hospital prescribing system, HEPMA. One Board used a combination of HEPMA and the GP prescribing system, PIS, depending on the medication. For the other boards, a data request was issued by Public Health Scotland for weekly manually constructed excel spreadsheets, known as the PHSOs. All but one Board sent at least one excel file.

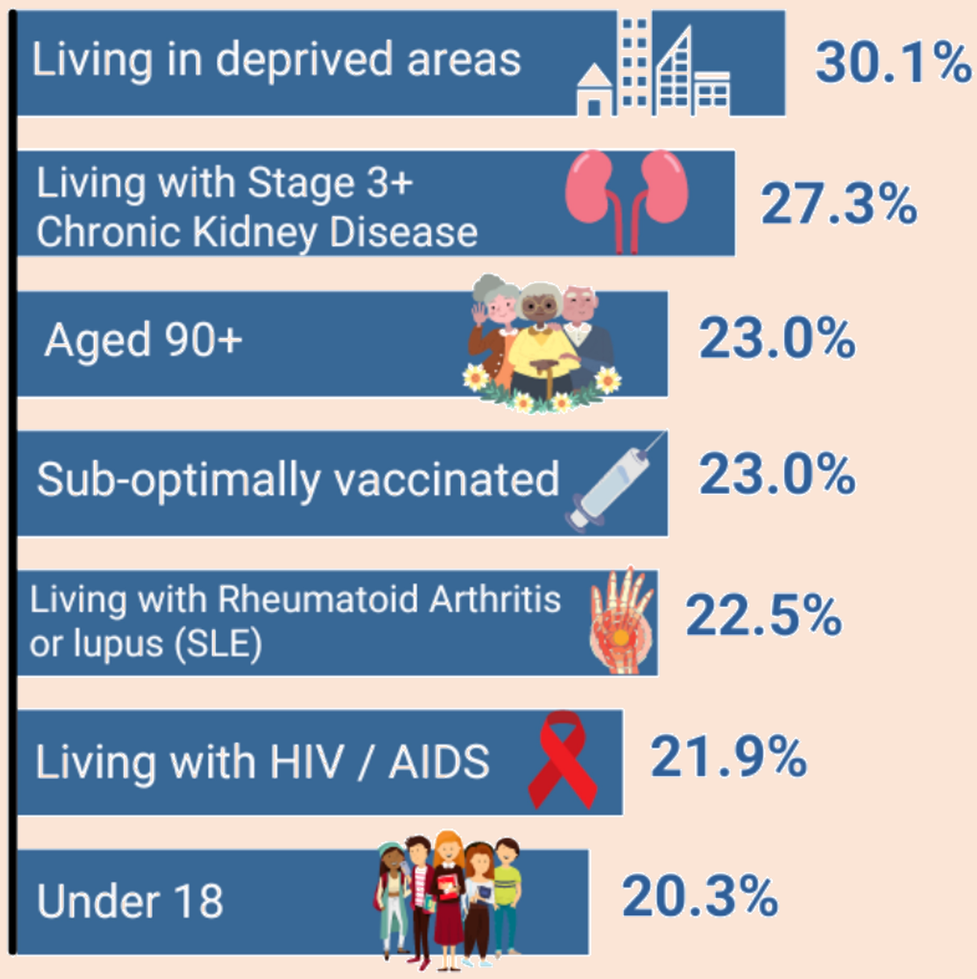


98·5% of treated outpatients setting were treated within 5 days of diagnosis

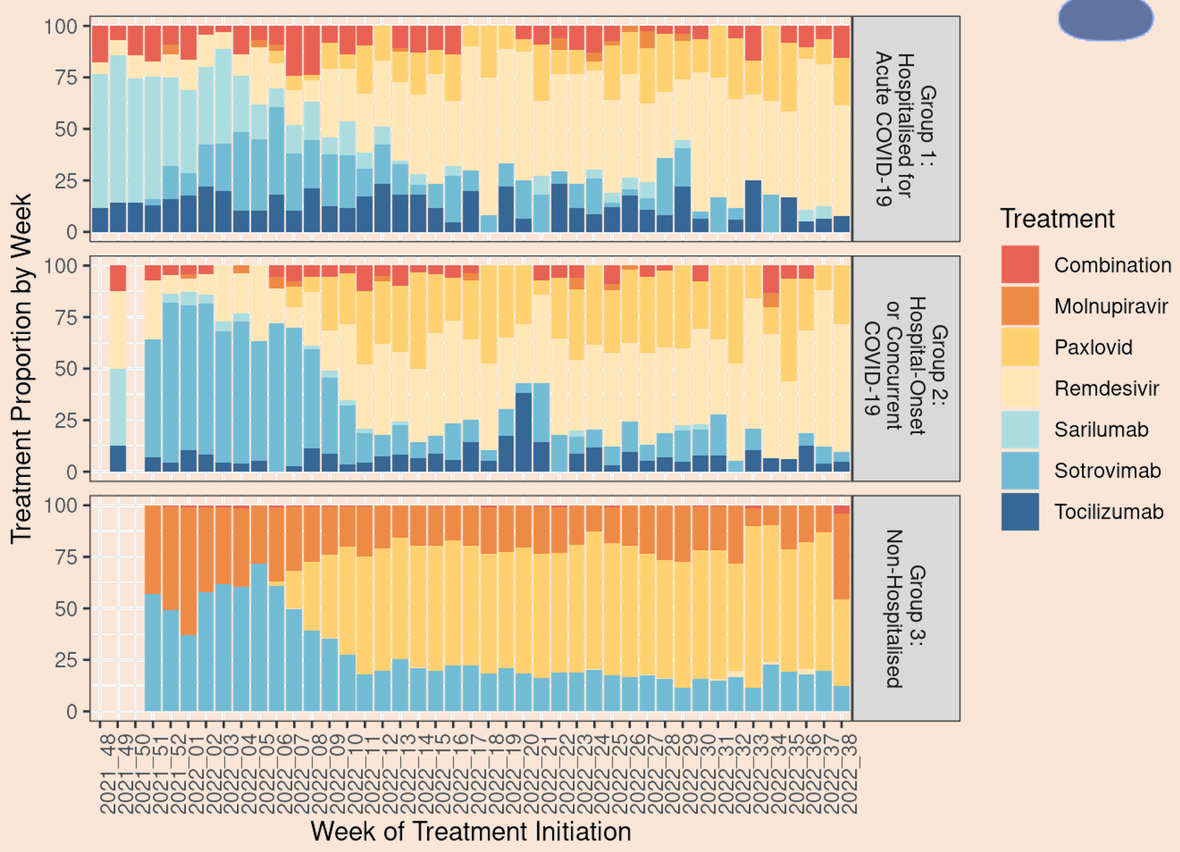
2 Treatment Uptake

We estimated who would have been eligible for one of the available COVID-19 treatments, based on a positive SARS-CoV-2 test, and a diagnosis of one of the identified conditions with high-risk for severe COVID-19 outcomes. We were not able to exclude people with mild or naturally resolving symptoms, who would have not been offered treatment, as this data was not available.

Overall, 50% of the identified population were treated, but treatment was less common in those:



3 Treatment Allocation



- Over time, the treatment most commonly allocated to hospital patients with severe COVID-19 changed from Sarilumab, to Sotrovimab, then then Remdesivir.
- Hospital patients treated for either concurrent or hospital-onset COVID-19, were first given Sotrovimab, which was then replaced by either Paxlovid or Remdesivir.
- 81% of treatment episodes were initiated in the outpatient or community setting.
- Sotrovimab and Molnupiravir were used most often until around March 2022, when Paxlovid became the primary choice.

4 Treatment Effectiveness

1.1% of those treated in the community were admitted to hospital for COVID-19 within 28 days of treatment initiation. For these patients, having fewer than three COVID-19 vaccinations, having been diagnosed with blood cancer or chronic kidney disease, or having had chemotherapy or a solid organ transplant (compared to other treated patients without such diagnoses) were all independently associated with higher odds of subsequent COVID-19 inpatient admission.

Scan to find out more!

EAVE II

This work was done with the support of our Patient Advisory Group, who contributed to the planning, analysis, understanding, and dissemination of this research.