The NHS OpenSAFELY Data Analytics Service

Watch this 4-minute video to see how OpenSAFELY protects GP records, while allowing vital research for the NHS and public good.

OpenSAFELY is run by NHS England and strongly supported by the British Medical Association (BMA) and the Royal College of GPs (RCGP).

OpenSAFELY - tools for research using GP records

OpenSAFELY is software that researchers use to study health information. Developed by the University of Oxford and the London School of Hygiene and Tropical Medicine for COVID-19, it is now being used to support wider research.

So far, 200 COVID-19 projects have been approved by NHS England, leading to **over 90 research papers**, as well as reports on topics such as COVID-19 vaccination uptake.

From July 2025, all GP practices in England using SystmOne (TPP) and EMIS Web (Optum) are required to enable NHS England-approved researchers to use coded information (such as diagnoses, prescriptions and test results), joined to other health information, for important studies beyond COVID-19.

This pilot, the NHS OpenSAFELY Data Analytics Service, runs until March 2027. NHS England is responsible for the data. The BMA & RCGP will review all applications so you don't have to.

What information is available?

Researchers can use:

- Codes for diagnoses, procedures, medications, and test results.
- Other details such as sex, age, living region, A&E and hospital information.

Researchers **cannot** use:

- Information that directly identifies a patient (such as name, address, mobile number)
- Written notes, letters, or images (such as patient photos, x-rays, or other scans)

How does OpenSAFELY protect your data?

Transparency: full analysis methods of each study, changes made, and when the study is run, are all visible online. Investigators can check that researchers followed their study plans.

Security: all analyses are run inside the GP surgery computer systems; patient data is never sent elsewhere. Researchers see the results of their study - never full patient records.

Privacy: results are only released once checks confirm no patient can be identified. These anonymised results are shared in science journals, at research conferences, and in reports.

Why is joining other information so important?

It allows studies that could not otherwise be done, and multiple sources increase accuracy. For example, to understand how health conditions affect risk of dying following COVID-19 infection, the Office of National Statistics shares causes and dates of death. Adding information from other services requires NHS England to consult with the BMA & RCGP.

Additional protections:

- Researchers **never interact directly with real patient records**; instead they are given randomly generated dummy data to develop their analysis. OpenSAFELY then runs the analysis against real patient records (see Core Design Features for details).
- National standards for ethical reviews are followed.
- Researchers must pass a Safe Researcher course to access the secure GP surgery systems to view study results.
- Since analysis methods are public, researchers can review and learn from each other, re-use and refine their code, helping research continually improve.
- GPs remain in control of access to GP records. **If a practice has legitimate concerns, it can switch off access, whilst raising concerns with NHS England.**

NHS England maintains the Data Protection Impact Assessment. The OpenSAFELY website describes how to use the OpenSAFELY tools, and lists all the projects that have been approved, including the names of the lead researchers.

Can patients opt-out of their information being accessed?

Type 1 Opt-Out: if a patient registers this Opt-Out with their practice, researchers cannot use their GP information in OpenSAFELY.

National Data Opt-Out: it does not automatically apply under NHS England policy when pseudonymised personal data is used. However, researchers can request it to be applied.

Should there be a future public health emergency, OpenSAFELY can temporarily set aside Opt-Outs, but NHS England must seek agreement of the BMA & RCGP before doing so.

Is OpenSAFELY used for day-to-day patient care?

Not at present. It is used only for research studies.

Since OpenSAFELY runs inside the GP surgery computer systems, in the future some OpenSAFELY tools may support the day-to-day patient care. For example, they could help identify patients at risk of falls, monitor diabetes, or support prescribing in real-time. Any change will be agreed with the BMA & RCGP.