

## Coronavirus pandemic

# Scientists warn of new coronavirus variant spreading across Europe

Genetic mutation that originated in Spain transmitted by returning holidaymakers, researchers find



Research suggests that people returning from holiday in Spain played a key role in transmitting the virus across Europe © Andy Rain/EPA-EFE/Shutterstock

**Clive Cookson** in London 7 HOURS AGO

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A coronavirus variant that originated in Spanish farm workers has spread rapidly through much of Europe since the summer, and now accounts for the majority of new Covid-19 cases in several countries — and more than 80 per cent in the UK.

An international team of scientists that has been [tracking the virus through its genetic mutations](#) has described the extraordinary spread of the variant, called 20A.EU1, in a [research paper](#) to be published on Thursday.

Their work suggests that people returning from holiday in Spain played a key role in transmitting the virus across Europe, raising questions about whether the second wave that is sweeping the continent could have been reduced by improved screening at airports and other transport hubs.

Because each variant has its own genetic signature, it can be traced back to the place it originated.

“From the spread of 20A.EU1, it seems clear that the [virus prevention] measures in place were often not sufficient to stop onward transmission of introduced variants this summer,” said Emma Hodcroft, an evolutionary geneticist at the University of Basel and lead author of the study which is yet to be published in a peer-reviewed journal.

The scientific teams in Switzerland and Spain are now rushing to examine the behaviour of the variant to establish whether it may be more deadly or more infectious than other strains.

Dr Hodcroft stressed that there was “no evidence that the variant’s [rapid] spread is due to a mutation that increases transmission or impacts clinical outcome”.

But she emphasised that 20A.EU1 was unlike any version of Sars-Cov-2 — the virus that causes Covid-19 — she had previously come across. “I’ve not seen any variant with this sort of dynamic for as long as I’ve been looking at genomic sequences of coronavirus in Europe,” she said.

In particular, the teams are working with virology laboratories to establish whether 20A.EU1 carries a particular mutation, in the “spike protein” that the virus uses to enter human cells, that might alter its behaviour.

All viruses develop mutations — changes in the individual letters of their genetic code — which can group together into new variants and strains. Another mutation in Sars-Cov-2, called D614G, has been identified which is believed to make the virus more infectious.

Joseph Fauver, a genetic epidemiologist at Yale University who was not involved in the research published on Thursday, said: “We need more studies like this to find mutations that have risen to high frequency in the population, and then reverse-engineer them to see whether they make the virus more transmissible.”

The new variant, which has six distinctive genetic mutations, emerged among agricultural workers in north-east Spain in June and moved quickly through the local population, according to the study.

Tanja Stadler, professor of computational evolution at ETH Zurich who is part of the project, said that analysis of virus samples taken from across Europe in recent weeks showed they were derived from this same variant.

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“We can see the virus has been introduced multiple times in several countries and many of these introductions have gone on to spread through the population,” Prof Stadler said.

Iñaki Comas, head of the SeqCovid-Spain consortium that is studying the virus and a co-author of the study, added: “One variant, aided by an initial super-spreading event, can quickly become prevalent.”

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The researchers concluded that the “risky behaviour” of holidaymakers in Spain — such as ignoring social distancing guidelines — who “continue to engage in such behaviour at home” helped the spread of the new variant.

The research showed that the new variant accounted for more than eight out of 10 cases in the UK, 80 per cent of cases in

Spain, 60 per cent in Ireland and up to 40 per cent in Switzerland and France.

Stringent lockdowns in the early part of the year helped bring the initial Covid-19 surge under control, with new cases substantially reduced over the summer.

But the virus has spread rapidly back through Europe in recent weeks in a resurgence that has forced national leaders to introduce painful new restrictions on social activities.