



Omicron daily overview: 24 December 2021

Summary

UK total case numbers

	Confirmed Omicron cases	Change from previous report	SGTF cases*	Change from previous report
England	102,729	+19,203	192,965	+31,918
Northern Ireland	4,357	+480	N/A	N/A
Scotland	6,154	+3,828	32,669	+2,746
Wales	1,385	+208	2,553	+740
Cumulative total	114,625	+23,719	229,187	+35,404

Data up to 6pm 23 December 2021 for England

Data up to 5pm 23 December 2021 for Scotland and Wales

Data up to 4pm 23 December 2021 for Northern Ireland

Notes to table

* SGTF cases in the above table excludes persons ruled out as other variants

Changes in case definition have been applied and are reflected in Appendix 1

NI labs do not use SGTF as a proxy for Omicron and therefore will not have any probable cases as per the current case definition to report

Hospitalisations and deaths

	Hospitalisations (Confirmed and SGTF*)	Deaths
England	366	29

Data provided 24 December 2021 for dates up to 23 December 2021

Notes to table

*SGTF cases in the above table exclude cases confirmed with other variants

Changes in case definition have been applied and are reflected in Appendix 1 of this overview

Data set and definitions as described in Appendix 2. The data is lagged and requires hospital staff to submit emergency care data sets to NHS Digital for analysis and linkage with testing data

Breakdown of England daily cases by region

Region	Confirmed Omicron cases	Change from previous report	SGTF cases*	Change from previous report
East Midlands	10,975	+1,416	14,977	+3,160
East of England	6,652	+1,347	22,658	+2,517
London	26,645	+4,618	45,658	+4,155
North East	3,630	+576	4,070	+1,094
North West	11,597	+2,297	28,506	+7,038
South East	22,060	+4,352	21,842	+3,023
South West	9,117	+1,965	8,314	+2,182
West Midlands	7,418	+2,006	16,404	+3,816
Yorkshire and Humber	4,372	+585	15,470	+2,827
Unknown	263	+41	15,041	+2,106
Total	102,729	+19,203	192,965	+31,918

Data up to 6pm 23 December 2021

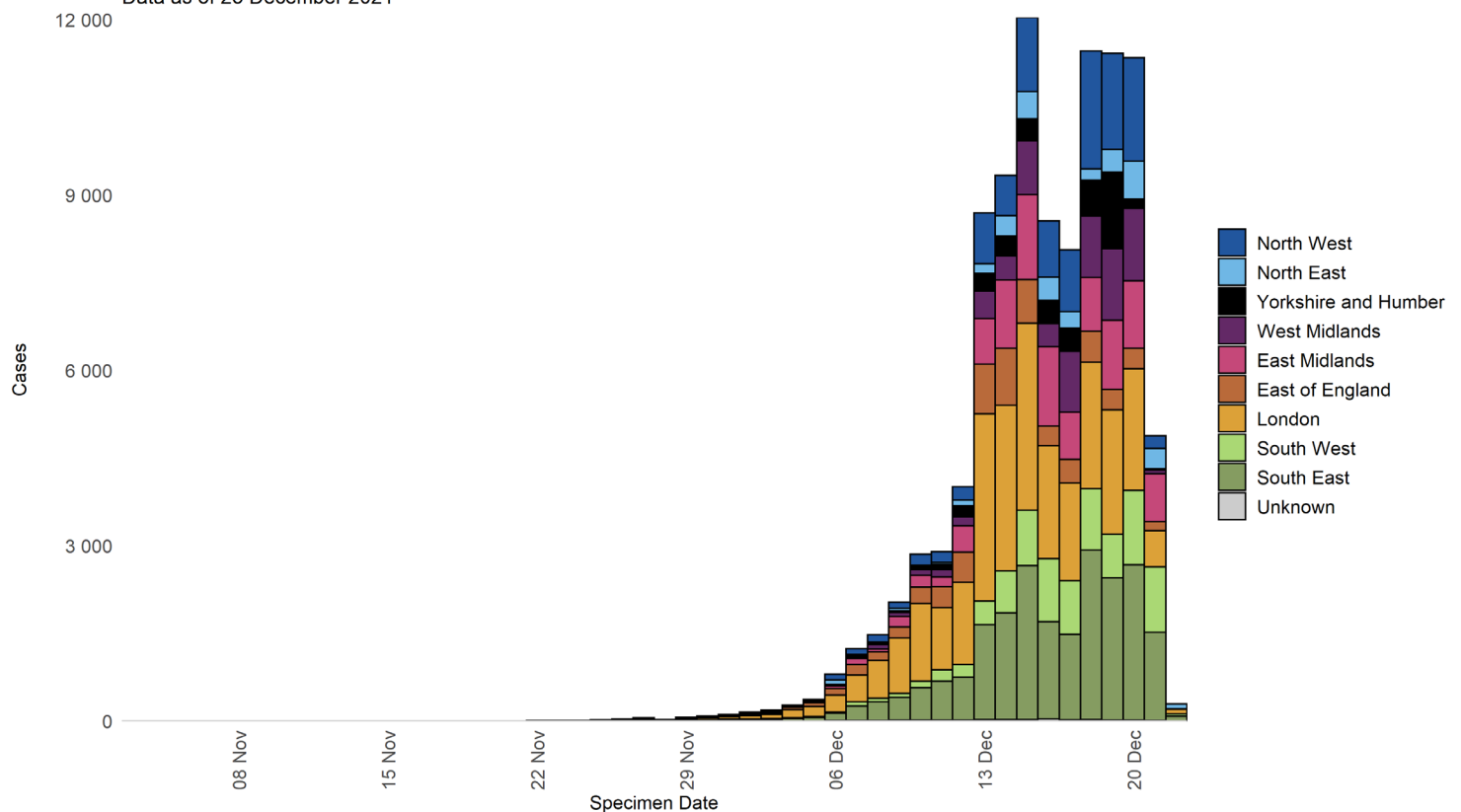
Notes to table

*SGTF cases in the above table exclude cases confirmed with other variants

Changes in case definition have been applied and are reflected in the appendix 1

Epidemiology curve of confirmed Omicron cases by region

Data as of 23 December 2021



Samples with S-gene target failure (SGTF)

Number and proportion of SARS-CoV-2 cases with SGTF by region, among those with specimen dates on 21 and 22 December 2021.

Region	Total COVID Cases with known S-gene status**	SGTF cases	SGTF %
East Midlands	4,636	3,991	86.1
East of England	3,251	2,848	87.6
London	3,975	3,712	93.4
North East	2,420	1,746	72.1
North West	8,501	7,517	88.4
South East	3,816	3,228	84.6
South West	2,161	1,808	83.7
West Midlands	4,060	3,460	85.2
Yorkshire and Humber	1,410	1,181	83.8
England	34,270	29,524	86.2

SGSS data as of 6pm 23 December 2021.

Notes to tables

** Known S-gene status based on those tested by TaqPath laboratories (Alderley Park, Milton Keynes, Glasgow, and Newcastle Lighthouse Laboratories).

Figure 1. COVID-19 cases with detectable S-gene/SGTF and percentage with SGTF among those tested in TaqPath Labs by day, by region

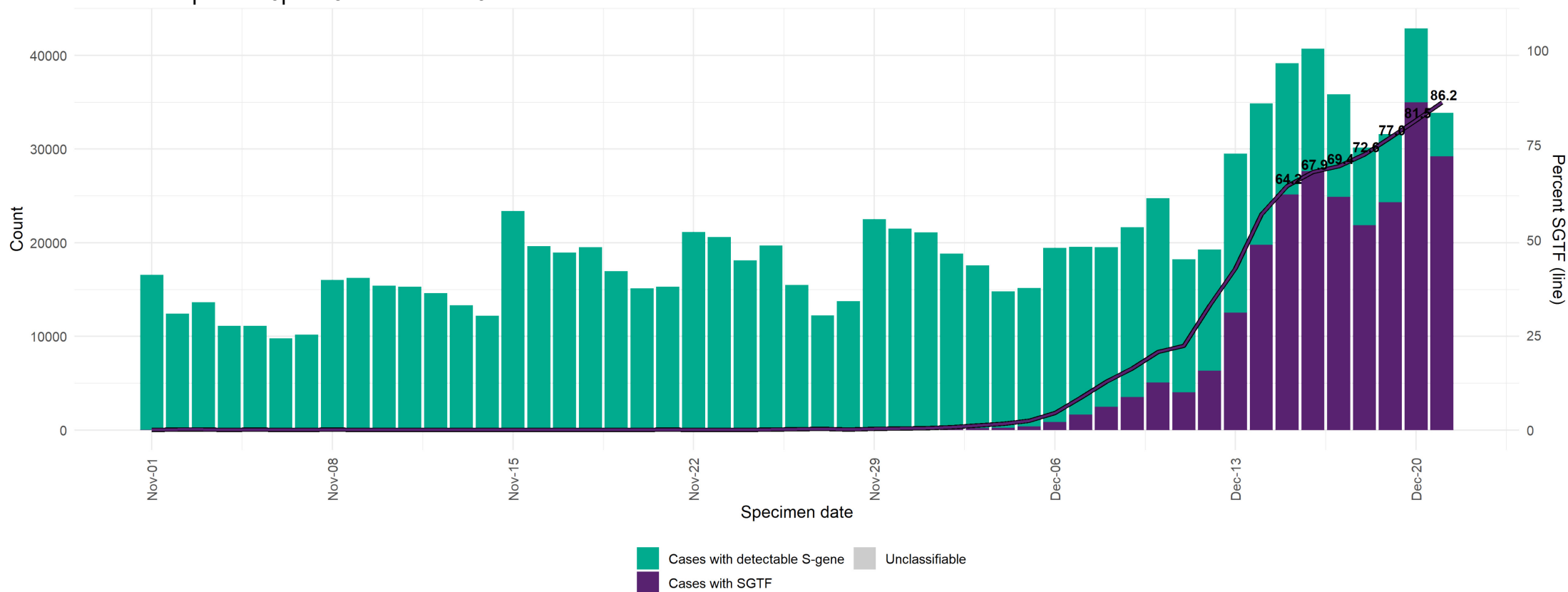
(95% confidence intervals indicated by grey shading).

Data updated 6pm 23 December 2021.



A detectable S gene is a proxy for Delta since April 2021. SGTF was a surveillance proxy for VOC-20DEC-01 however has largely consisted of Delta since August 2021. Local trends in these data may be affected by decisions to direct the processing of samples via a TaqPath laboratory. Only tests carried out with the TaqPath PCR assay and with confirmed SGTF or S gene results included, from Newcastle, Alderley Park, Milton Keynes and Glasgow Lighthouse Labs. SGTF refers to non-detectable S gene and ≤ 30 CT values for N and ORF1ab genes. Detectable S-gene refers to ≤ 30 CT values for S, N, and ORF1ab genes. Produced by Outbreak Surveillance Team, UKHSA.

Figure 2. Number of COVID-19 cases with S-gene positive/SGTF by day, among those tested in TaqPath labs
 (95% confidence intervals indicated by grey shading).
 Data updated 6pm 23 December 2021.



A detectable S gene is a proxy for Delta since April 2021. SGTF was a surveillance proxy for VOC-20DEC-01 however has largely consisted of Delta since August 2021. Local trends in these data may be affected by decisions to direct the processing of samples via a TaqPath laboratory. Only tests carried out with the TaqPath PCR assay and with confirmed SGTF or S gene results included, from Newcastle, Alderley Park, Milton Keynes and Glasgow Lighthouse Labs. SGTF refers to non-detectable S gene and ≤ 30 CT values for N and ORF1ab genes. Detectable S-gene refers to ≤ 30 CT values for S, N, and ORF1ab genes. Produced by Outbreak Surveillance Team, UKHSA.

Regional doubling times for the number of tests with SGTF

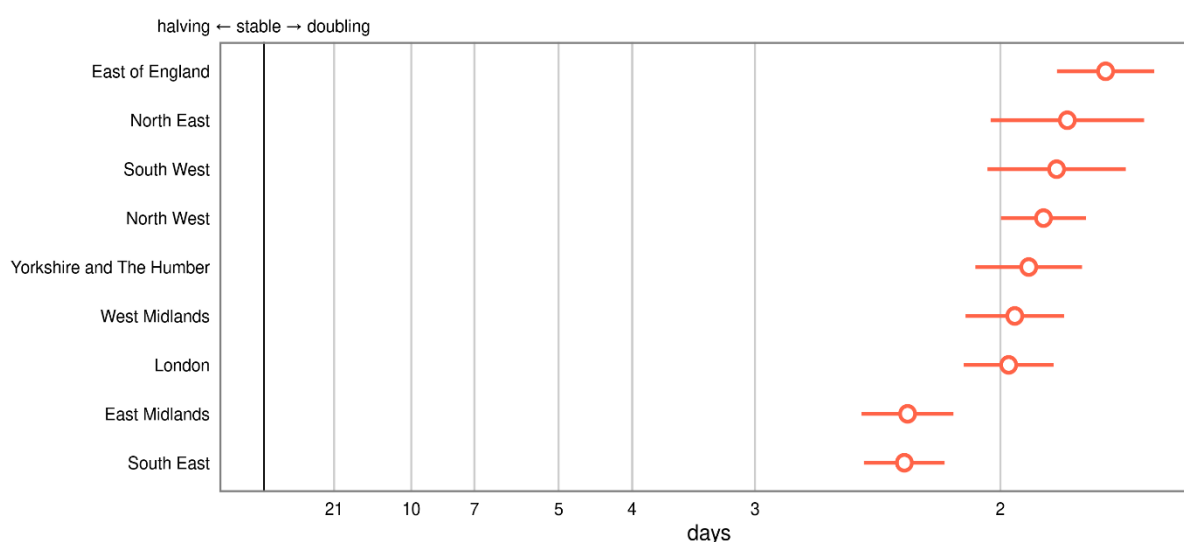
Region	Doubling Time	Doubling Time Lower CI	Doubling Time Upper CI
East of England	1.75	1.65	1.86
North East	1.83	1.67	2.03
South West	1.86	1.71	2.04
North West	1.89	1.79	2
Yorkshire and The Humber	1.93	1.8	2.07
West Midlands	1.96	1.84	2.1
London	1.98	1.87	2.11
East Midlands	2.29	2.14	2.46
South East	2.3	2.16	2.45

Data up to 6pm 22 December 2021 – this data has not been updated

We are observing doubling time central estimates of less than 2.5 days for every region, though we are now seeing much tighter confidence intervals (CI's).

The NHS regions 'North East' and the 'East of England' showing the highest current absolute growth. This data is plotted in figure 3 below. Methodology for this is included in appendix 3.

Figure 3. Most recent regional doubling times for the number of tests with SGTF



Appendix 1

Counts are based on case definitions agreed on 13 December 2021
(Implemented on data 6pm 14 December 2021):

- **confirmed case:** Omicron (B.1.1.529) by sequencing or genotyping (i) 417N and 681R failure; ii) 69-70 deletion plus 417N; iii) 69-70 deletion plus 501Y; iv) Q493R, vi) other relevant genotyping results)
- **probable case:** COVID-19 PCR positive and i) SGTF^^ or ii) 69-70 deletion with specimen dates from 1 December**
- **possible case:** COVID-19 PCR positive and SGTF^^ with specimen dates from November 1 up to and including November 30*

^^S-gene target failure (SGTF): A positive SARS-CoV-2 PCR test carried out on the TaqPath assay with undetectable S-gene and CT values ≤ 30 for both N and Orf1ab gene targets. Currently reported into SGSS by Milton Keynes, Alderley Park, Glasgow, and Newcastle lighthouse laboratories.

*Excludes those confirmed as non-Omicron variant.

Appendix 2

Definitions of hospitalisation

Cases with presentation to a type 1 A&E and are admitted or transferred at the end of their emergency care stay, who have a positive SARS-CoV-2 test either:

- within 14 days prior to admission
- within 1 day post admission

Data source: NHS England provide this data from the NHS Digital Emergency Care Data Set (ECDS). This data is subject to delays.

Appendix 3

Methodology for calculating doubling times for Omicron:

The plot was produced fitting a generalised additive model with a Negative Binomial error structure to positivity within the sample of tests that detect SGTF from NPEx. The dashed lines represent uncertainty (95% CI), which grows as we approach the plot edges because the number of data points used for the estimation becomes smaller. Note that, if an epidemic trend changes from growth to decay, the growth rates change from positive to negative, while the doubling times become longer and longer, cross infinity when the trend is temporarily flat, and turn into halving times (ie number of days it takes for cases/deaths to halve), represented as negative doubling times.