UK Health Security Agency

Omicron daily overview: 18 December 2021

Summary

UK total case numbers

	Confirmed Omicron cases	Change from previous report	SGTF cases*	Change from previous report
England	23,168	+9,427	62,597	+19,521
Northern Ireland	827	+514	0	+0
Scotland	792	+96	13,736	+3,242
Wales	181	+22	372	+135
Cumulative total	**24,968**	**+10,059**	**76,705**	**+22,898**

Data up to 6pm 17 December 2021

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 the appendix 1

Hospitalisations and deaths

	Hospitalisations (Confirmed and SGTF*)	Deaths
England	85	7

Data provided 17 December 2021 for dates up to 16 December 2021

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 the appendix 1 of this overview

Data set and definitions as described in Appendix 2. This data is lagged and requires hospitals to submit their emergency care datasets 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	3730	+1250	3832	+1359
East of England	1561	+399	8622	+2264
London	7155	+2597	20563	+6937
North East	1134	+466	767	+459
North West	1610	+1141	9832	+2581
South East	4796	+2175	7529	+2432
South West	1644	+482	1705	+506
West Midlands	990	+792	5014	+1273
Yorkshire and Humber	486	+101	4660	+1689
Unknown	62	+24	73	+21
Total	**23168**	**+9427**	**62597**	**+19521**

Data up to 6pm 17 December 2021

Notes to table

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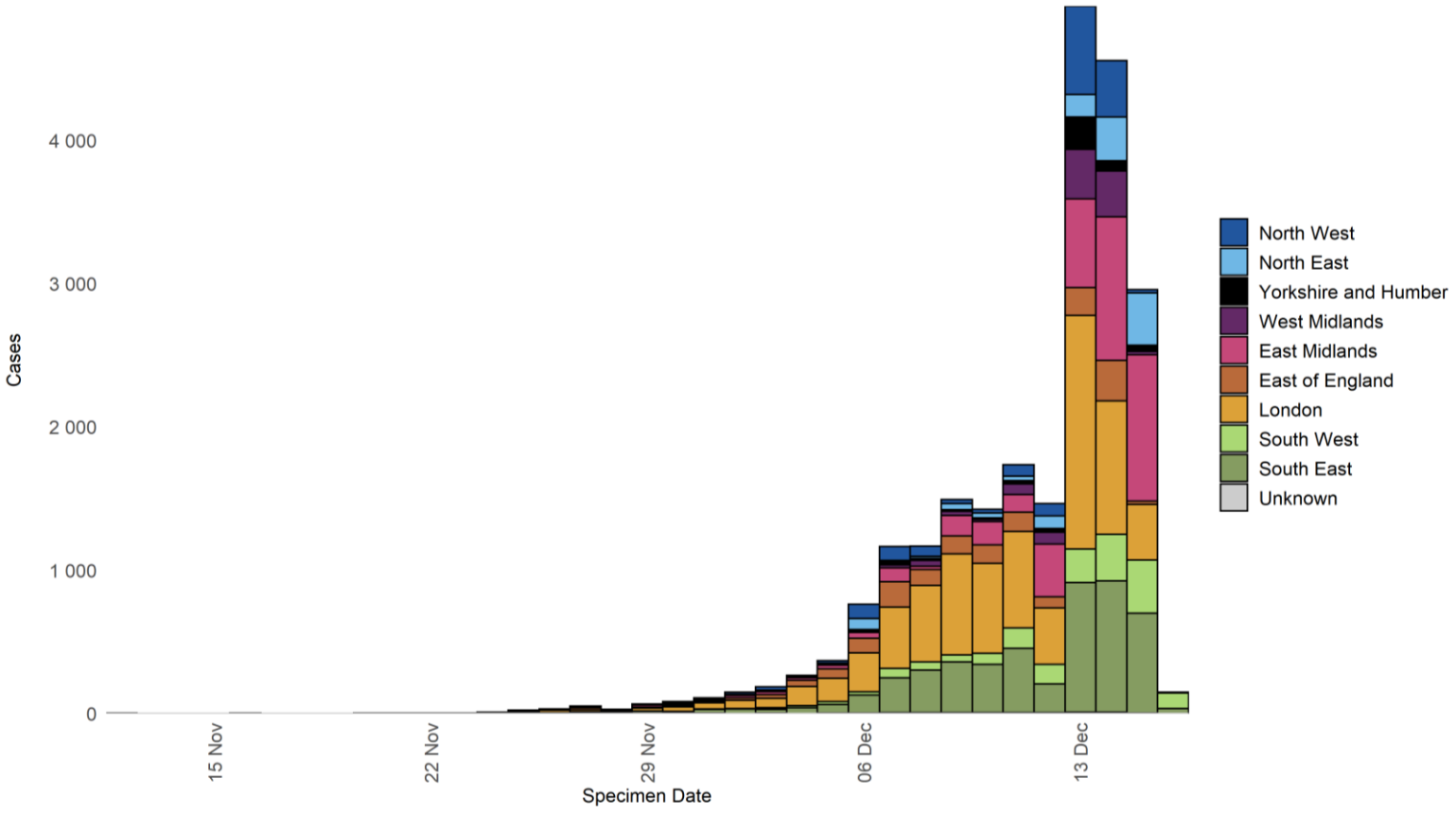
  Changes in case definition have been applied and are reflected in the appendix 1

Epidemiology curve of confirmed Omicron cases by region

Data up to 6pm 16 December 2021



Samples with S-gene target failure

Number and proportion of SARS-CoV-2 cases with S-gene target failure by region, among those with specimen dates on 15 and 16 December 2021.

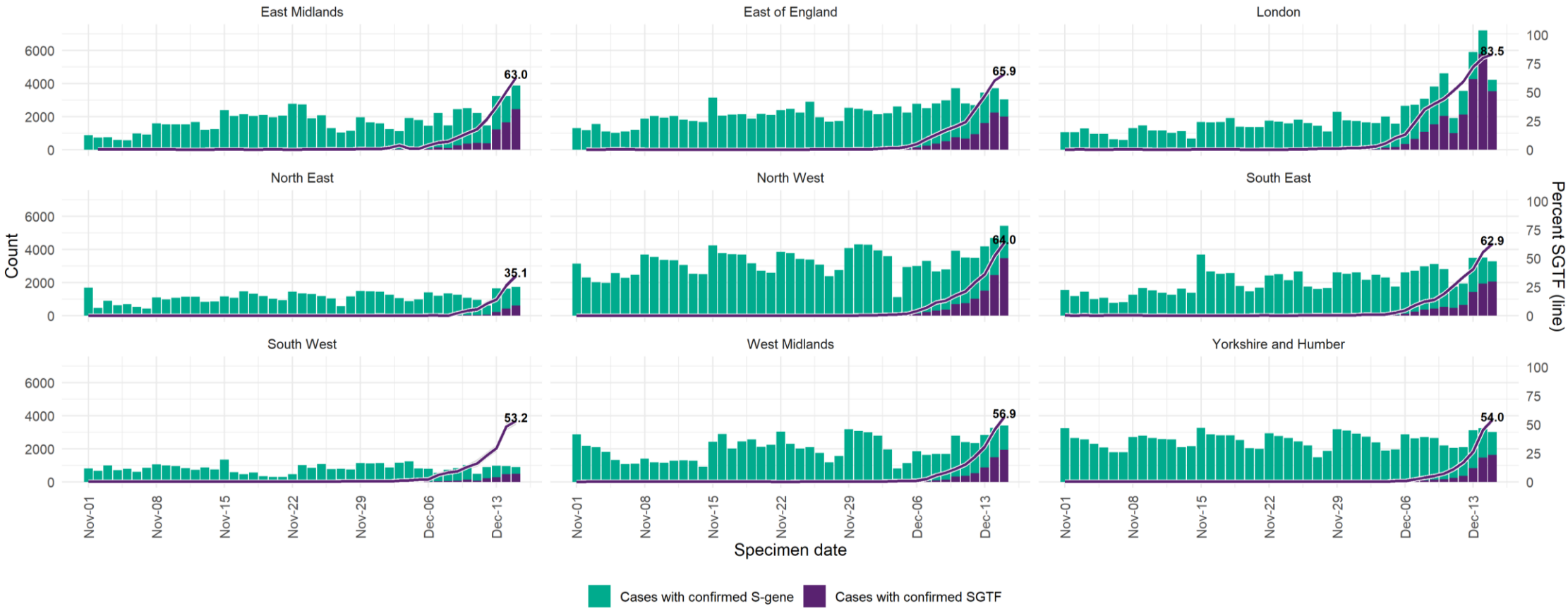
Region	Total COVID-19 cases with known S-gene status**	SGTF cases	SGTF %
East Midlands	3945	2482	62.9
East of England	3040	2005	66
London	4243	3540	83.4
North East	2343	806	34.4
North West	5671	3614	63.7
South East	3291	2072	63
South West	888	473	53.3
West Midlands	3509	1985	56.6
Yorkshire and Humber	3049	1651	54.1
England	30029	18660	62.1

SGSS data as of 6pm 17 December 2021.
The SGTF % is plotted below by region (Figure 1) and nationally (Figure 2).

Notes to tables

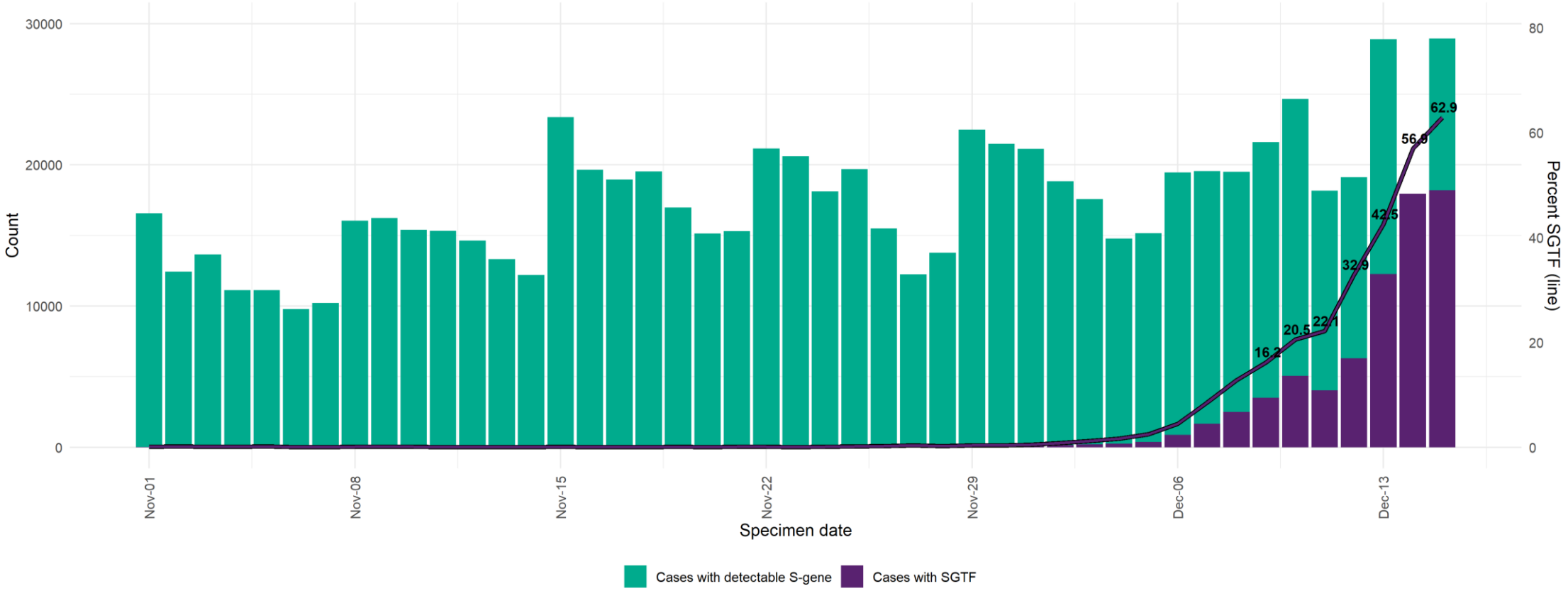
** Known S-gene status based on those tested by TaqPath laboratories (Alderley Park, Milton Keynes, Glasgow, and Newcastle Lighthouse Laboratories).

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 17 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 17 December 2021.



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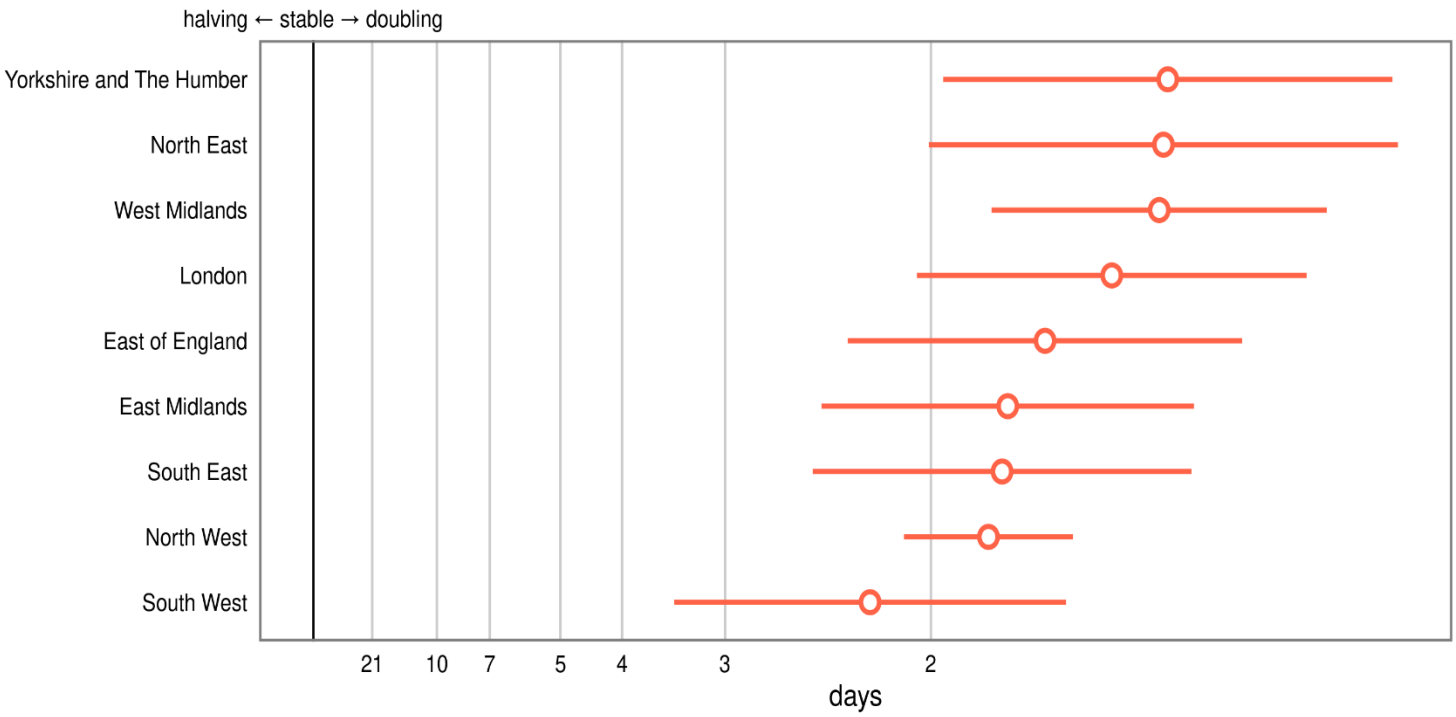
Regional doubling times for the number of tests with SGTF

Region	Doubling Time	Doubling Time Lower CI	Doubling Time Upper CI
East Midlands	1.96	1.7	2.33
East of England	1.74	1.52	2.03
London	1.89	1.62	2.27
North East	1.3	1.11	1.55
North West	1.88	1.68	2.11
South East	1.74	1.54	2.01
South West	2.1	1.88	2.39
West Midlands	1.49	1.33	1.69
Yorkshire and Humber	1.35	1.22	1.51

Data up to 6pm 16 December 2021 – this data is not updated over the weekend

We are observing doubling time central estimates of less than 2 days for every region except the South West. This may be related to poor PCR gene target reporting coverage in this region. 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 below 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 CoV2 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 Keyes, 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 GAM (generalised additive model) with a Negative Binomial error structure to positivity within the sample of tests that detect S-gene target failure 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 (i.e. number of days it takes for cases/deaths to halve), represented as negative doubling times.