Toxigenic *Corynebacterium diphtheriae* Disease in South Africa, week 21 2026

Report date: 29 May 2026
Reporting period: 29 December 2025 to 24 May 2026
Date of data extraction: 28 May 2026
Data are provisional as of the date data was extracted. Case counts are reported and analysed by date of first specimen collection, or by date of first clinical presentation where the specimen collection date is unavailable. Data cleaning is ongoing, and this may result in some changes in subsequent reports.

Highlights

- Since the last situational report (week 20, 2026), the following updates are included in this report
  - No new laboratory-confirmed cases of toxigenic diphtheria.
  - No new asymptomatic carriers of toxigenic *C. diphtheriae*

Table 1: Number of suspected, probable and confirmed cases of toxigenic respiratory and cutaneous diphtheria in South Africa, 29 December 2025 to 24 May 2026.

Case definition	Number	Provincial distribution
Laboratory-confirmed toxigenic respiratory diphtheria	23	Western Cape (23/23, 100%)
Probable diphtheria cases	0	
Laboratory-confirmed toxigenic cutaneous diphtheria	1	Gauteng (1/1, 100%)
Suspected diphtheria cases with specimens sent to exclude diphtheria and tested negative	61	Free State (2/61, 3%) Gauteng (2/61, 3%) KwaZulu-Natal (3/61, 5%) Mpumalanga (2/61, 3%) Western Cape (52/61, 85%)
Asymptomatic carriers of toxigenic *C. diphtheriae* identified during contact tracing	7	Western Cape (7/7, 100%)
Deaths in probable and laboratory-confirmed toxigenic respiratory diphtheria cases	5	Western Cape (5/5, 100%)

Epidemiology of respiratory diphtheria cases and asymptomatic carriers, 29 December 2025 - 24 May 2026

Between 29 December 2025 and 24 May 2026, 23 confirmed cases of respiratory diphtheria and seven asymptomatic carriers of toxigenic *C. diphtheriae* have been identified in South Africa. All respiratory cases and carriers were from the Western Cape (Figure 1, Table 1). The median age for cases of confirmed respiratory diphtheria was 23 years (range: 5-40 years), with 65% (15/23) being 18 years and older. The overall case-fatality ratio (CFR) among confirmed respiratory diphtheria cases was 22% (5/23). The highest CFR was observed among individuals aged 30-39 years (75%; 3/4), although this estimate should be interpreted with caution given the very small number of cases in this age group (Table 2).

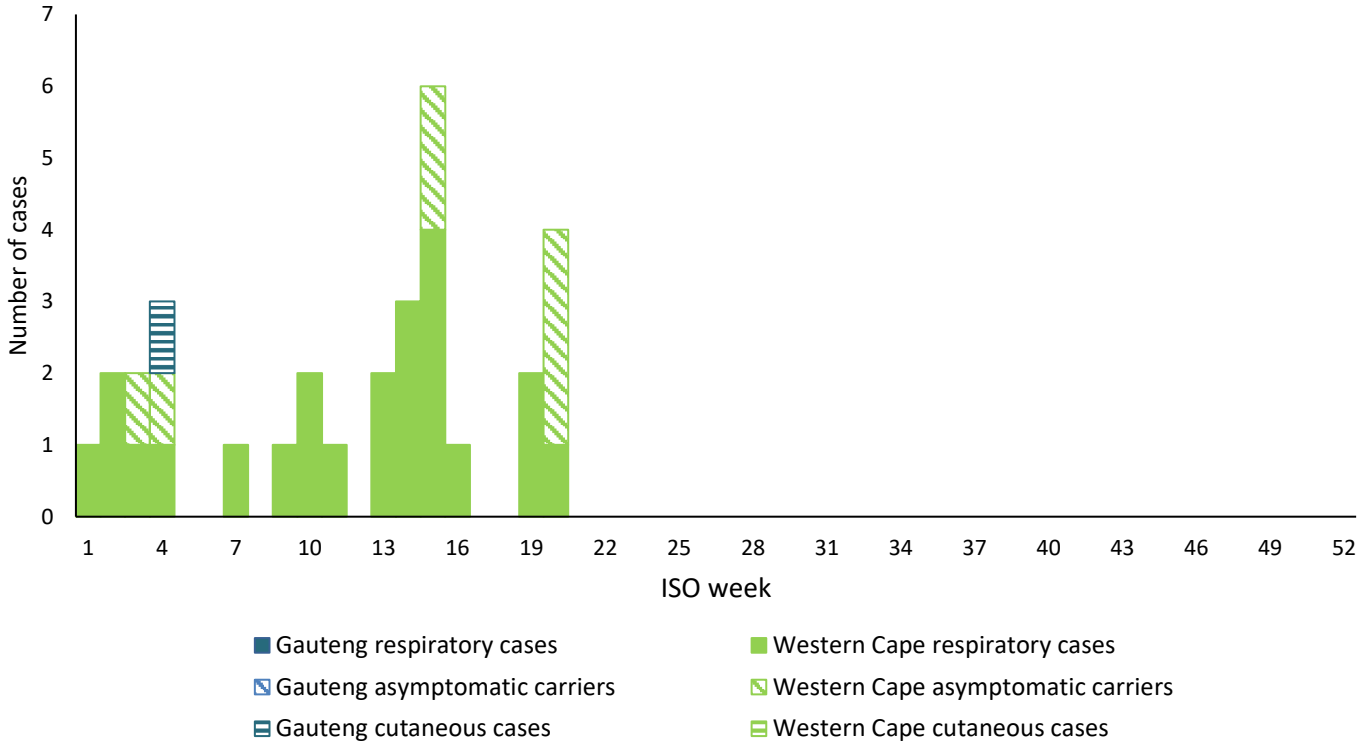

Figure 1: Number of individuals testing positive for toxigenic *C. diphtheriae* (respiratory diphtheria cases, asymptomatic carriers and cutaneous cases) and probable cases, South Africa, 29 December 2025 - 24 May 2026.

Note: Case counts are reported and analysed by date of first specimen collection, or by date of symptom onset where the specimen collection date is unavailable. Data cleaning is ongoing, and this may result in some changes in subsequent reports. ISO: International Organization for Standardization.

Table 2: Age distribution of laboratory-confirmed and probable respiratory diphtheria cases, diphtheria-related deaths, and case-fatality ratio, 29 December 2025 to 24 May 2026.

Age category (years)	Confirmed cases (n)	Probable cases (n)	Diphtheria-related deaths (n)	Case-fatality ratio (%)
0-9	4	0	1	25
10-19	6	0	1	17
20-29	8	0	0	0
30-39	4	0	3	75
40-49	1	0	0	0
50-59	0	0	0	0
≥60	0	0	0	0
Total	23	0	5	22

Clusters and sporadic respiratory diphtheria cases by province

Between 29 December 2025 and 24 May 2026, **five diphtheria clusters** were identified, comprising 15 individuals (8 respiratory cases and 7 asymptomatic carriers), all in the Western Cape. Outside these clusters, 15 **sporadic respiratory cases** with no known epidemiologic links were reported in the **Western Cape** (Table 3).

Table 3. Summary of diphtheria clusters reported in South Africa from 29 December 2025 to 24 May 2026

Cluster No.	Week (week start date)[1]	Province (City)	Details	Cluster type
1	2 (5 January 2026)	Western Cape (Cape Town)	2 respiratory cases 1 asymptomatic carrier	Household/family
2	4 (19 January 2026)	Western Cape (Cape Town)	1 respiratory case 1 asymptomatic carrier	Household/family
3	15 (6 April 2026)	Western Cape (Cape Town)	2 respiratory cases 1 asymptomatic carrier	Household/family
4	15 (6 April 2026)	Western Cape (Cape Town)	2 respiratory cases 1 asymptomatic carrier	Household/family
5	19 – 20 (4 - 11 May 2026)	Western Cape (Cape Town)	1 respiratory cases 3 asymptomatic carriers	Correctional facility

[1]Period between the first recorded infection and the last observed infection within each cluster, expressed in weeks. Each week starts on a Monday and is labelled by its start date, following the ISO 8601 standard. Based on the date of clinical presentation or sample collection.

Notified suspected cases of diphtheria

From 29 December 2025 to 24 May 2026, there were 61 reports of suspected diphtheria cases who tested negative for *C. diphtheriae*. Alternative diagnoses became available for some individuals with suspected diphtheria, including *Streptococcus pyogenes, Streptococcus dysgalactiae* or respiratory viruses, including influenza.

Cutaneous toxigenic diphtheria cases

One cutaneous toxigenic diphtheria case was reported from Gauteng.

Non-toxigenic diphtheria

From 29 December 2025 to 24 May 2026, 24 individuals with non-toxigenic *C. diphtheriae* (13 asymptomatic, 10 cutaneous, one bacteraemia) have been detected (Table 4).

Table 4: Number of non-toxigenic *Corynebacterium* spp. infections by species and clinical presentation, South Africa, 29 December 2025 to 24 May 2026.

Clinical presentation	*C. diphtheriae*	*C. belfantii*	*C. ulcerans*	Total
Asymptomatic*	13	0	0	13
Cutaneous	10	0	0	10
Respiratory	0	0	0	0
Other**	1	0	0	1
Total	24	0	0	24

*Asymptomatic carriers identified as part of contact tracing before confirmation of non-toxigenic *C. diphtheriae*
** Bacteraemia

Microbiology

Of the 31 toxigenic *C. diphtheriae* infections identified, 27 were culture-confirmed; of these, three isolates lost viability, leaving 24 isolates for further phenotypic and genotypic characterisation.

The phenotypic Elek test to confirm toxin production showed 100% agreement with the toxin-gene PCR among isolates tested by both methods to date (n = 23). No non-toxigenic toxin-gene–bearing (NTTB) isolates have been identified; such isolates would be Elek-negative but PCR-positive for the toxin gene.

Antimicrobial susceptibility testing was performed on 24 isolates using the disc diffusion method in accordance with European Committee on Antimicrobial Susceptibility Testing (EUCAST) guidelines. All tested isolates were susceptible to penicillin, with increased exposure (zone diameter [ZD] range 18–23 mm) and susceptible to erythromycin (ZD range 27–33 mm) (Figure 2) (1,2).

To date, sequence data are available for 18 of 24 viable toxigenic *C. diphtheriae* isolates. The remaining 6 isolates have pending sequence results. All Western Cape Province isolates are sequence type (ST) 906 (n = 17), the same lineage first detected in 2023 and currently appearing to be localised within this province. One cutaneous diphtheria isolate from Gauteng is ST447.

Table 5: Toxigenic *C.diphtheriae* infections by sequence type and province, South Africa, 29 December 2025 to 24 May 2026.

Province	ST 906	ST 447	Pending	Total
Gauteng	0	1	0	1
Western Cape	17	0	6	23
Total	17	1	6	24

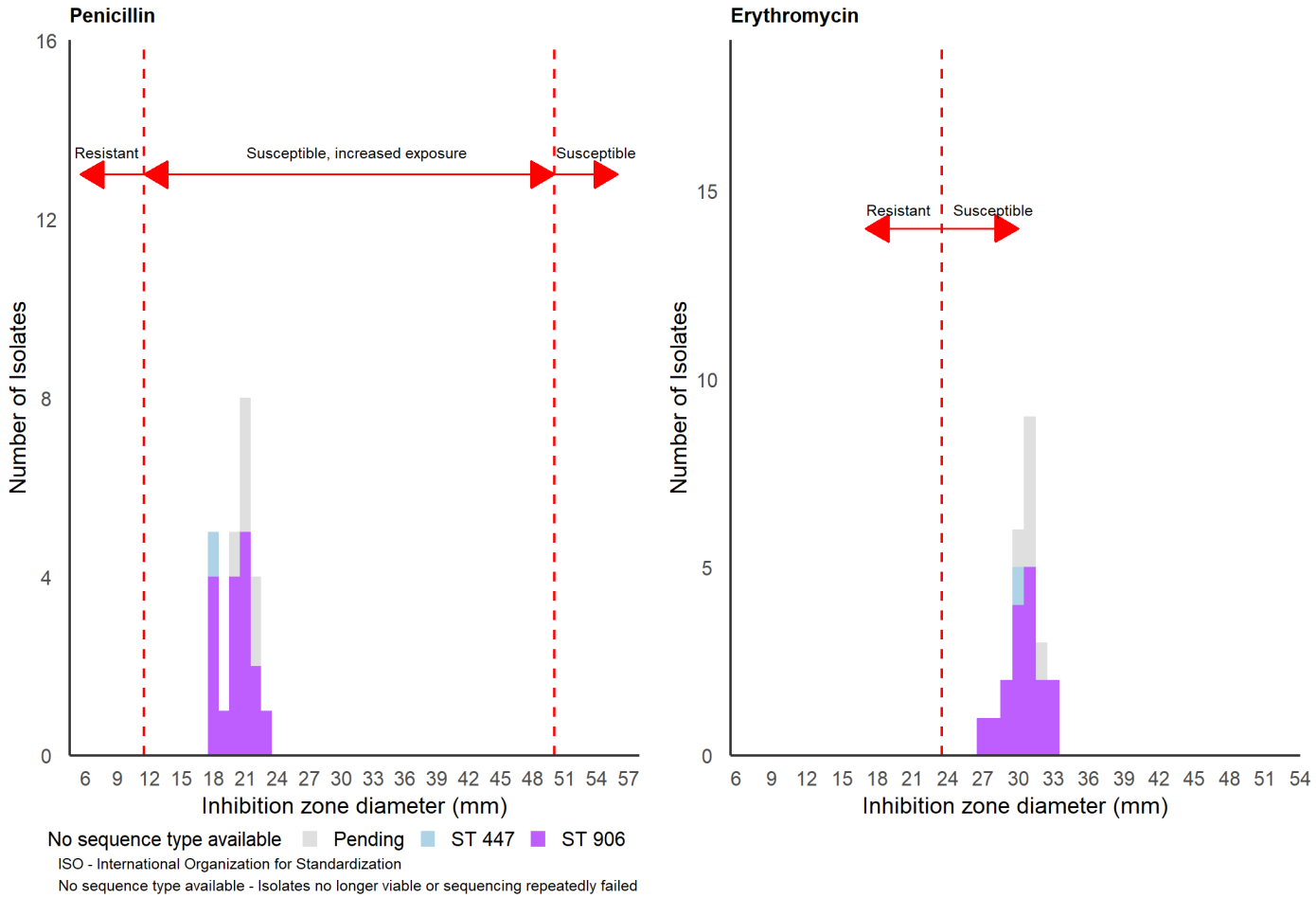

Figure 2: Antimicrobial susceptibility testing for toxigenic *C. diphtheriae* isolates from respiratory diphtheria cases, asymptomatic carriers, and cutaneous cases, South Africa, 2026 (N = 24). The red vertical dashed lines indicate the clinical breakpoints defined by the European Committee on Antimicrobial Susceptibility Testing (EUCAST). Arrows represent the inhibition zone diameter ranges at which *C. diphtheriae* is classified as susceptible, "susceptible at increased exposure", or resistant to each antibiotic.

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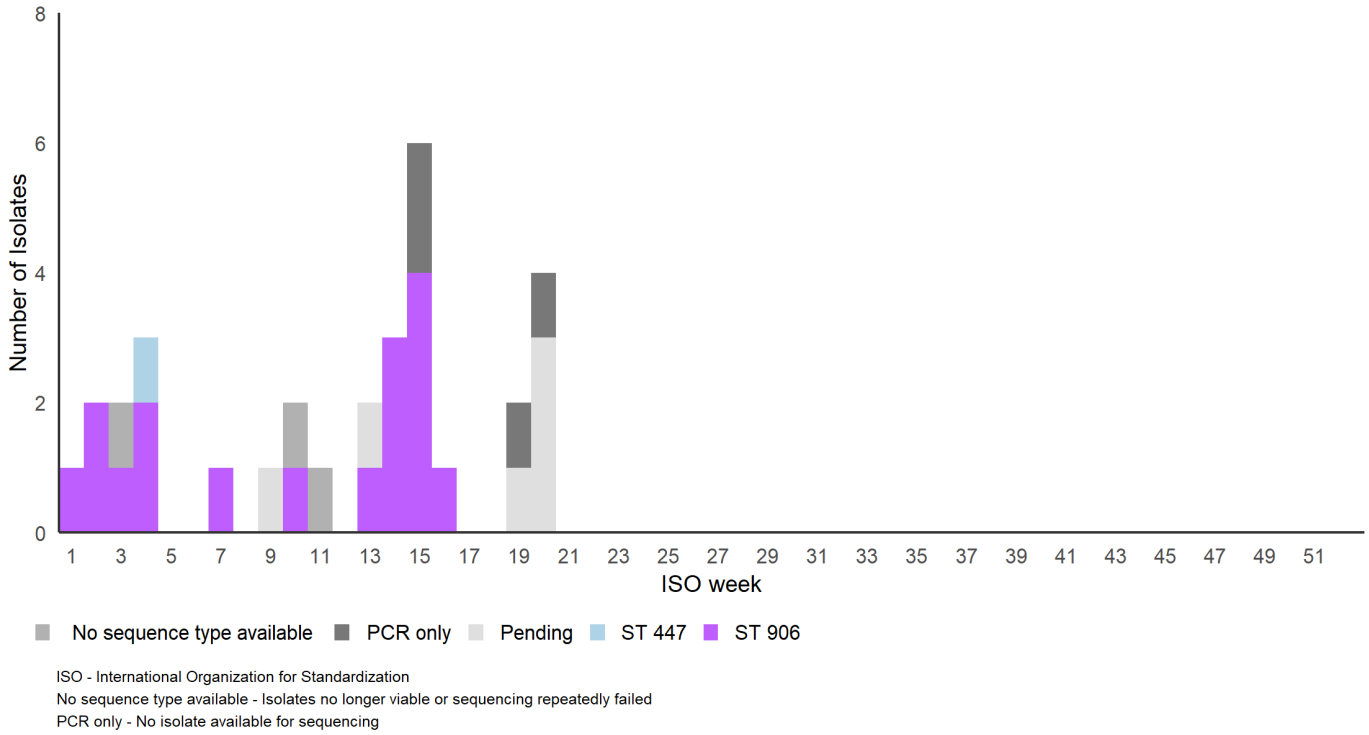

Figure 3: Number of individuals testing positive for toxigenic *C. diphtheriae* (respiratory diphtheria cases and asymptomatic carriers and cutaneous cases) (N=31) by sequence type, South Africa, 29 December 2025 to 24 May 2026.

Additional resources

Further information on diphtheria case definitions, laboratory testing, clinical management and outbreak response can be found on the National Institute for Communicable Diseases website: https://www.nicd.ac.za/diseases-a-z-index/diphtheria/

References

1. EUCAST. Antimicrobial susceptibility testing: EUCAST disk diffusion method. Version 11.0. 2023. http://www.eucast.org/ast_of_bacteria/disk_diffusion_methodology/
2. Berger A, Badell E, Åhman J, Matuschek E, Zidane N, Kahlmeter G, Sing A, Brisse S. Corynebacterium diphtheriae and Corynebacterium ulcerans: development of EUCAST methods and generation of data on which to determine breakpoints. J Antimicrob Chemother. 2024 May 2;79(5):968-976. doi: 10.1093/jac/dkae056. PMID: 38497937.
3. Williams MM, Waller JL, Aneke JS, Weigand MR, Diaz MH, Bowden KE, Simon AK, Peng Y, Xiaoli L, Cassiday PK, Winchell J, Tondella ML. Detection and Characterization of Diphtheria Toxin Gene-Bearing *Corynebacterium* Species through a New Real-Time PCR Assay. J Clin Microbiol. 2020 Sep 22;58(10):e00639-20. doi: 10.1128/JCM.00639-20. PMID: 32727830; PMCID: PMC7512153.
4. Engler KH, Glushkevich T, Mazurova IK, George RC, Efstratiou A. A modified Elek test for detection of toxigenic corynebacteria in the diagnostic laboratory. J Clin Microbiol. 1997 Feb;35(2):495-8. doi: 10.1128/jcm.35.2.495-498.1997. PMID: 9003626; PMCID: PMC229610.