Toxigenic *Corynebacterium diphtheriae* Disease in South Africa, Week 46, 2026

Report date: 20 November 2026
Reporting period: 29 December 2025 to 15 November 2026
Date of data extraction: 20 November 2026
The data presented in this report are provisional as of the data extraction date. Case counts are reported and analysed according to the date of first specimen collection or, where the date of specimen collection date is unavailable, the date of first clinical presentation. Data cleaning and validation are ongoing; therefore, the figures presented in this report are preliminary and may change in subsequent reports.

Highlights

- Since the last situational report (week 45, 2026), the following updates are included in this report
  - Two new laboratory-confirmed cases of toxigenic diphtheria from the Western Cape.
  - One new probable respiratory diphtheria case from the Western Cape.
  - Four new asymptomatic carriers of toxigenic *C. diphtheriae* from the Western Cape.
- Appropriate public health responses were initiated for all suspected and confirmed cases.

Table 1: Number of suspected, probable and confirmed cases of toxigenic respiratory and cutaneous diphtheria in South Africa, 29 December 2025 to 15 November 2026.

Case definition	Number	Provincial distribution
Laboratory-confirmed toxigenic respiratory diphtheria	49	Gauteng (6/49, 12%) Limpopo (5/49, 10%) Western Cape (38/49, 78%)
Probable diphtheria cases	6	Limpopo (5/6, 83%) Western Cape (1/6, 17%)
Laboratory-confirmed toxigenic cutaneous diphtheria	2	Gauteng (2/2, 100%)
Suspected diphtheria cases with specimens sent to exclude diphtheria and tested negative	142	Eastern Cape (1/142, 1%) Free State (4/142, 3%) Gauteng (13/142, 9%) KwaZulu-Natal (7/142, 5%) Limpopo (8/142, 6%) Mpumalanga (3/142, 2%) North West (2/142, 1%) Western Cape (104/142, 73%)
Asymptomatic carriers of toxigenic *C. diphtheriae* identified during contact tracing	15	Gauteng (1/15, 7%) Limpopo (2/15, 13%) Western Cape (12/15, 80%)
Deaths in probable and laboratory-confirmed toxigenic respiratory diphtheria cases	9	Gauteng (1/9, 11%) Limpopo (2/9, 22%) Western Cape (6/9, 67%)

Epidemiology of respiratory diphtheria cases and asymptomatic carriers, 29 December 2025 – 15 November 2026

Between 29 December 2025 and 15 November 2026, 49 confirmed cases of respiratory diphtheria and 15 asymptomatic carriers of toxigenic *C. diphtheriae* have been identified in South Africa. Most confirmed cases were reported from the Western Cape (78%; 38/49), followed by Limpopo (10%; 5/49) and Gauteng (12%; 6/49) (Figure 1, Table 1). Asymptomatic carriers were reported from the Western Cape (80%; 12/15), Limpopo (13%; 2/15) and Gauteng (7%; 1/15). Six probable cases were reported, five from Limpopo and one from the Western Cape (Figure 1, Table 1). The median age of cases of confirmed respiratory diphtheria was 23 years (range: 4-72 years), with 65% (32/49) being 18 years and older. The overall case-fatality ratio (CFR) among probable and confirmed respiratory diphtheria cases was 16% (9/55). The highest CFR was observed among individuals aged 30–39 years, at 33% (4/12) (Table 2). These age-specific estimates should be interpreted with caution given the small number of cases within each age group.

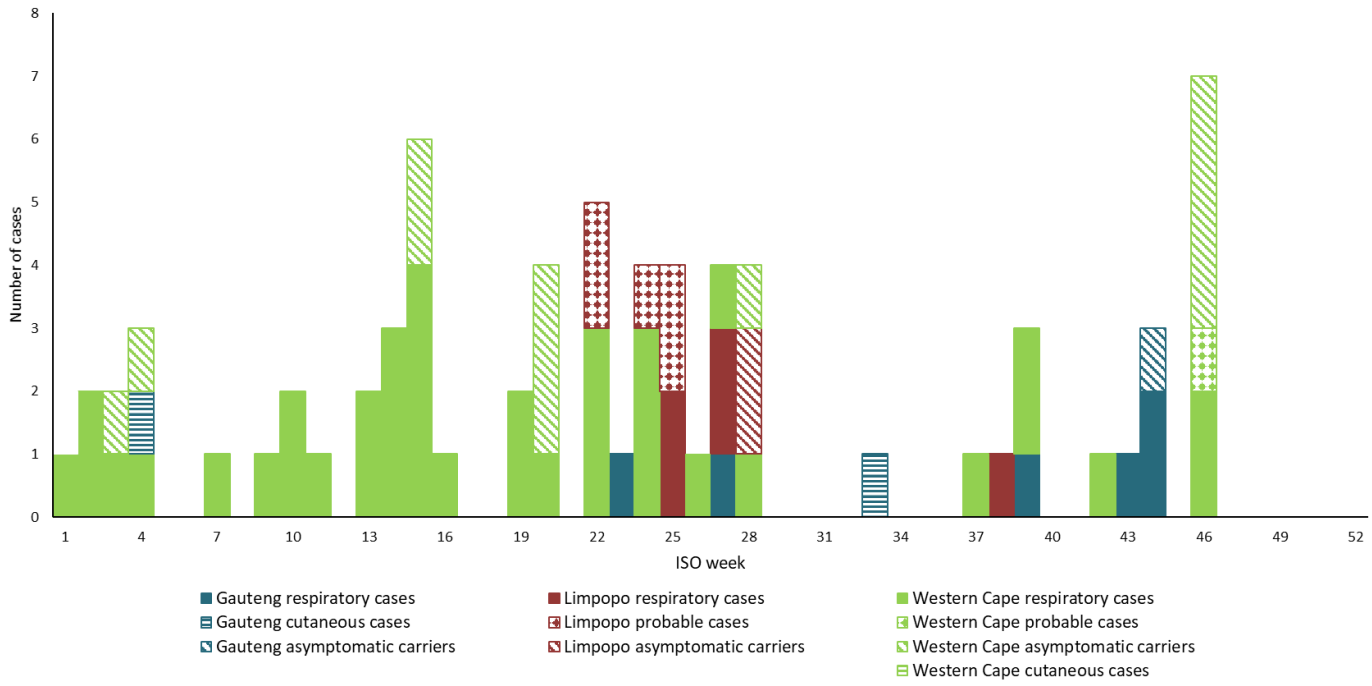


Figure 1: Number of individuals testing positive for toxigenic *C. diphtheriae* (respiratory diphtheria cases, asymptomatic carriers, and cutaneous cases) and probable cases, South Africa, 29 December 2025 – 15 November 2026.

*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 and validation are ongoing; therefore, the figures presented in this report are provisional and may change 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 15 November 2026.

Age category (years)	Confirmed cases	Probable cases	Diphtheria-related deaths	Case-fatality ratio (%)
0-9	10	1	1	9
10-19	9	4	4	31
20-29	14	1	0	0
30-39	12	0	4	33
40-49	2	0	0	0
50-59	1	0	0	0
≥60	1	0	0	0
Total	**49**	**6**	**9**	**16**

The case-fatality ratio among confirmed respiratory cases was 14% (7/49), and among probable cases was 33% (2/6).

Clusters and sporadic respiratory diphtheria cases by province

Between 29 December 2025 and 15 November 2026, 10 diphtheria clusters were identified, involving 38 individuals. These included 17 confirmed respiratory cases (10 in the Western Cape, four in Limpopo and three in Gauteng), 15 asymptomatic carriers (12 in the Western Cape, two in Limpopo and one in Gauteng), and six probable cases (five in Limpopo and one in the Western Cape). Outside these clusters, 32 sporadic respiratory cases with no known epidemiological links were reported, 28 in the Western Cape**,** three in Gauteng and one in Limpopo (Table 3).

Table 3. Summary of diphtheria clusters reported in South Africa from 29 December 2025 to 15 November 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 case 3 asymptomatic carriers	Correctional facility
6	22-26 (25 May- 22 June 2026)	Limpopo (Tzaneen)	4 respiratory cases 5 probable cases 2 asymptomatic carriers	Household/family
7	26-28 (22 June - 6 July 2026)	Western Cape (Cape Town)	1 respiratory case 1 asymptomatic carrier	Household/family
8	43-44 (19 - 26 October 2026)	Gauteng (Tshwane)	3 respiratory cases 1 asymptomatic carrier	Household/family
9	46 (9 November 2026)	Western Cape (Cape Town)	1 respiratory case 2 asymptomatic carriers	Correctional facility
10	46 (9 November 2026)	Western Cape (Cape Town)	1 probable case 2 asymptomatic carriers	Household/family

[1]Period between the first infections and the last recorded infections 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 15 November 2026, there were 142 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, Staphylococcus aureus* and respiratory viruses such as influenza.

Cutaneous toxigenic diphtheria cases

Between 29 December 2025 and 15 November 2026, two cutaneous toxigenic diphtheria cases were reported from Gauteng. The first case was reported in week four, and the latest case was reported in week 33.

Non-toxigenic diphtheria

From 29 December 2025 to 15 November 2026, 34 individuals with non-toxigenic *C. diphtheriae* (14 asymptomatic, 19 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 15 November 2026.

Clinical presentation	*C. diphtheriae*	*C. belfantii*	*C. ulcerans*	Total
Asymptomatic*	14	0	0	14
Cutaneous	19	0	0	19
Respiratory	0	0	0	0
Other**	1	0	0	1
Total	**34**	**0**	**0**	**34**

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

** Bacteraemia

Microbiology

Of the 66 toxigenic *C. diphtheriae* infections (49 respiratory cases, 15 asymptomatic carriers and two cutaneous cases), 45 were culture-confirmed; of these, four isolates lost viability, leaving 41 isolates for further phenotypic and genotypic characterisation.

The phenotypic Elek test for confirmation of toxin production showed 100% agreement with the toxin-gene PCR among isolates tested by both methods to date (n = 36). No non-toxigenic toxin-gene–bearing (NTTB) isolates have been identified; such isolates would be phenotypically non-toxigenic (Elek negative) but PCR positive for the toxin gene.

We performed antimicrobial susceptibility testing on 36 isolates using the disc diffusion method in accordance with European Committee on Antimicrobial Susceptibility Testing (EUCAST) guidelines. All tested isolates were classified as 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 30 of the 41 viable toxigenic *C. diphtheriae* isolates, with sequencing pending for 11 isolates. All sequenced Western Cape isolates were sequence type (ST) 906 (n = 26), the same lineage first detected in 2023 and currently appearing to be localised within this province. Two isolates from Limpopo were ST824, which had also been identified in respiratory diphtheria cases from Limpopo and Mpumalanga in 2025. In Gauteng, one isolate from a cutaneous diphtheria case was ST447, previously identified in another individual with cutaneous diphtheria in Gauteng in 2025. A second isolate, also from a cutaneous diphtheria case, was ST1115, a lineage previously identified in two individuals with non-toxigenic *C. diphtheriae* infections in Gauteng in 2026. All three ST1115 isolates were from patients who sought care in Tshwane, although no clear epidemiological links between the cases have been identified. To date, ST1115 has not been reported outside South Africa.

Table 5: Toxigenic *C. diphtheriae* infections by sequence type and province, South Africa, 29 December 2025 to 15 November 2026.

Province	ST 906	ST 824	ST 447	ST 1115	Pending	Total
Gauteng	0	0	1	1	4	6
Limpopo	0	2	0	0	0	2
Western Cape	26	0	0	0	7	33
Total	**26**	**2**	**1**	**1**	**11**	**41**

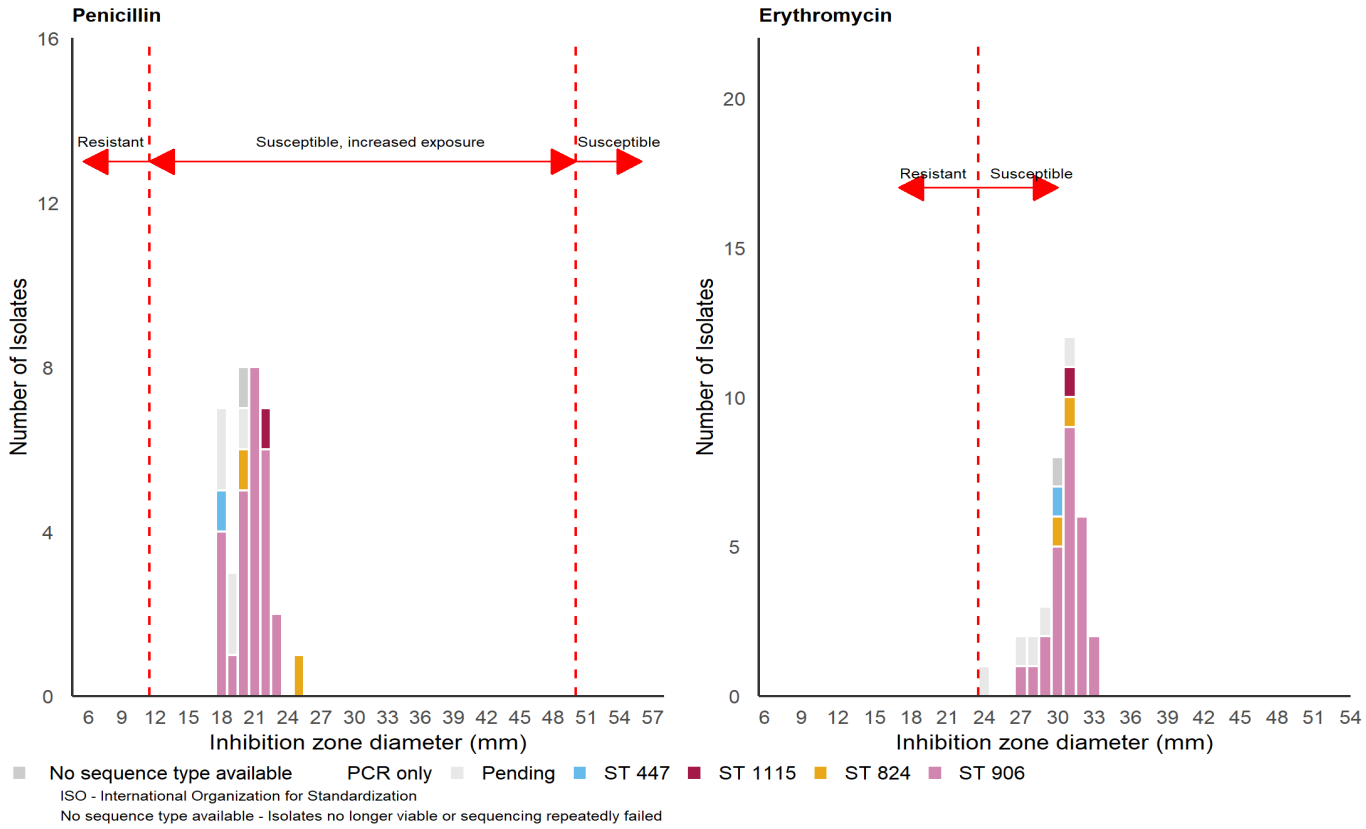


Figure 2: Antimicrobial susceptibility testing for toxigenic *C. diphtheriae* isolates from respiratory diphtheria cases, asymptomatic carriers, and cutaneous cases, South Africa, 2026 (N = 36). The red vertical dashed lines indicate the clinical breakpoints defined by the European Committee on Antimicrobial 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.

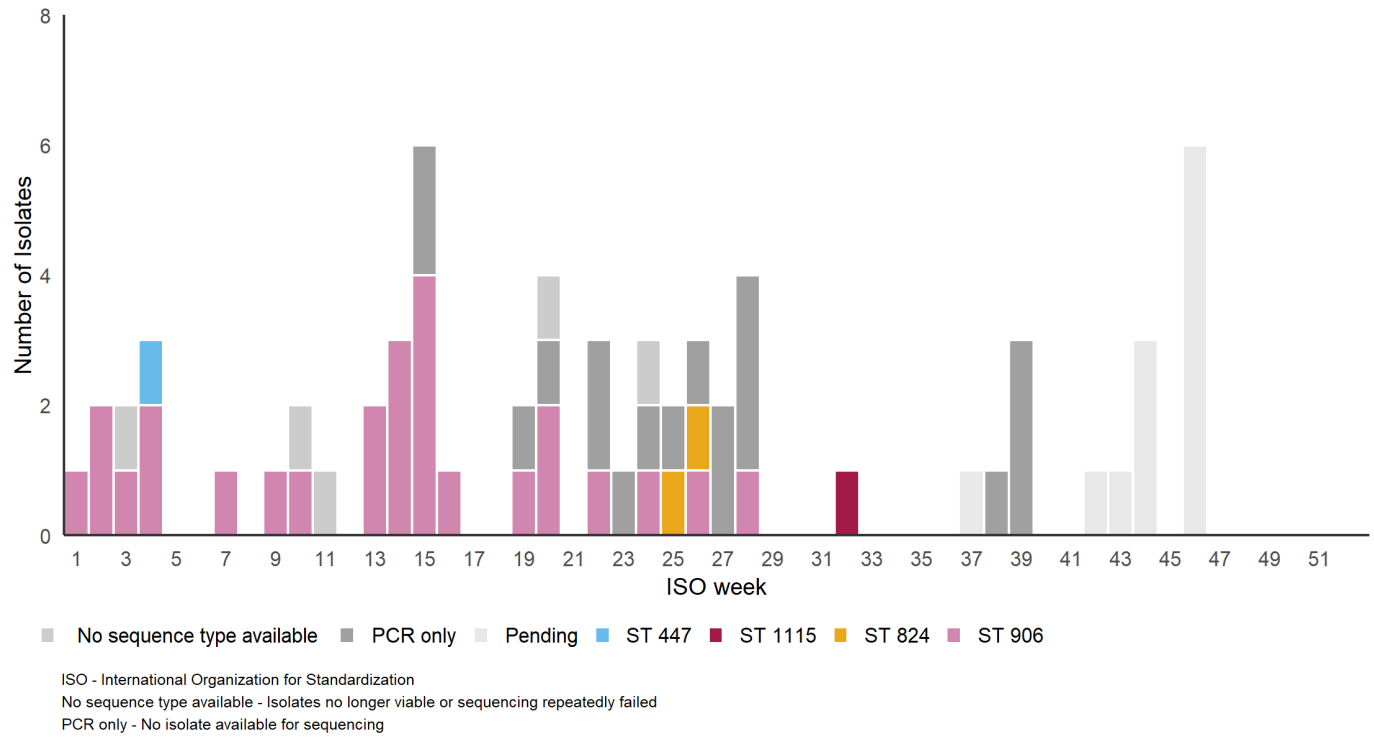


Figure 3: Number of individuals testing positive for toxigenic *C. diphtheriae* (respiratory diphtheria cases, asymptomatic carriers and cutaneous cases) (N=66) by sequence type, South Africa, 29 December 2025 to 15 November 2026.

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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

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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.
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