Toxigenic *Corynebacterium diphtheriae* Disease in South Africa, week 13 2026

Report date: 2 April 2026
Reporting period: 29 December 2025 to 29 March 2026
Date of data extraction: 2 April 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 12, 2026), the following updates are included in this report
  - Two new laboratory-confirmed cases of toxigenic diphtheria from the Western Cape.
  - No new asymptomatic carriers of toxigenic *C. diphtheriae*.
- 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 29 March 2026.

Case definition	Number	Provincial distribution
Laboratory-confirmed toxigenic respiratory diphtheria	12	Western Cape (12/12, 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	33	Free State (1/33, 3%) Gauteng (2/33, 6%) KwaZulu-Natal (2/33, 6%) Western Cape (28/33, 85%)
Asymptomatic carriers of toxigenic *C. diphtheriae* identified during contact tracing	2	Western Cape (2/2, 100%)
Deaths in probable and laboratory-confirmed toxigenic respiratory diphtheria cases	1	Western Cape (1/1, 100%)

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

Between 29 December 2025 and 29 March 2026, 12 confirmed cases of respiratory diphtheria and two asymptomatic carriers of toxigenic *C. diphtheriae*, detected during contact tracing, have been identified in South Africa. All cases and carriers were from the Western Cape (Figure 1, Table 1). The median age for cases of confirmed respiratory diphtheria was 28 years (range: 7-36 years), with 75% (9/12) being 18 years and older. The overall case-fatality ratio (CFR) among confirmed respiratory diphtheria cases was 8% (1/12). The only diphtheria-related death occurred in a child aged 0–9 years (Table 2).

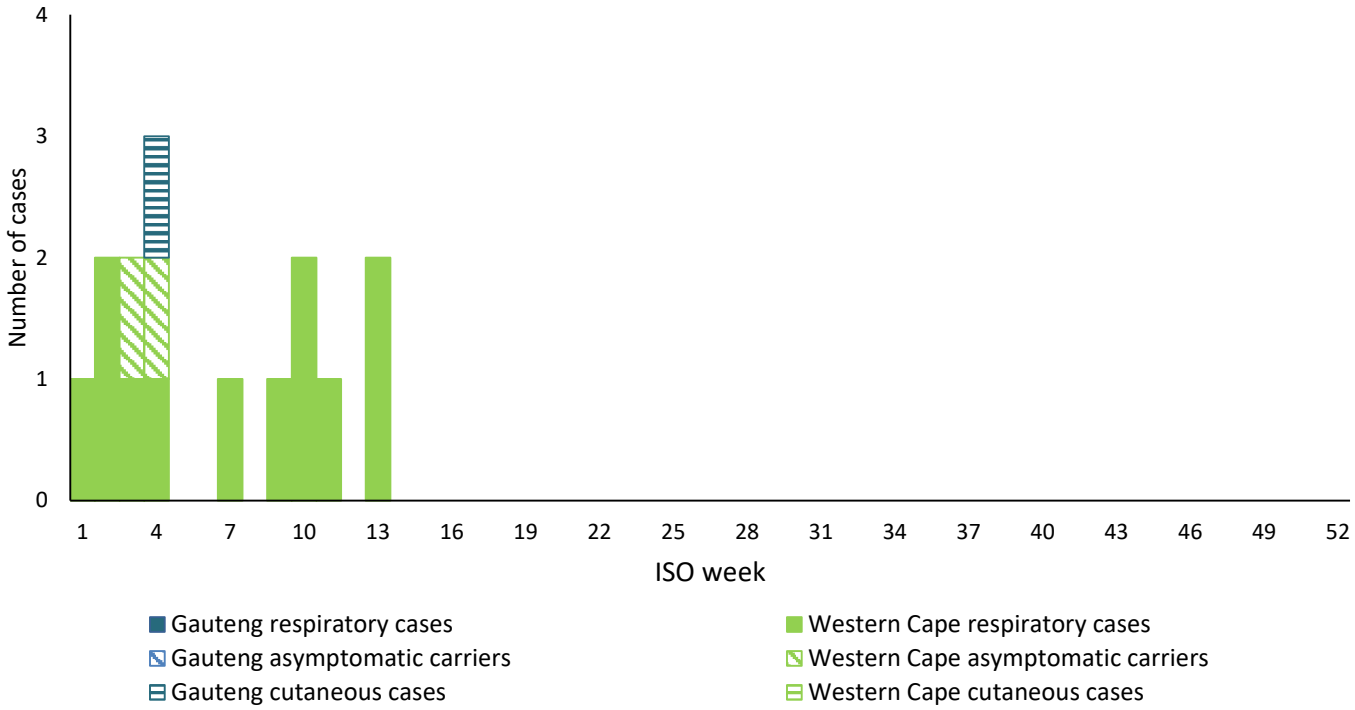

Figure 1: Number of individuals testing positive for toxigenic *C. diphtheriae* (respiratory diphtheria cases, asymptomatic carriers and cutaneous cases) and probable cases, South Africa, 29 December 2025 - 29 March 2026. Case counts are reported and analysed by date of first specimen collection, or 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 29 March 2026.

Age category (years)	Confirmed cases	Probable cases	Diphtheria-related deaths	Case-fatality ratio (%)
0-9	2	0	1	50
10-19	2	0	0	0
20-29	5	0	0	0
30-39	3	0	0	0
Total	12	0	1	8

Clusters and sporadic respiratory diphtheria cases by province

Between 29 December 2025 and 29 March 2026, **two diphtheria clusters** have been identified, both in the Western Cape. Outside these clusters, **10 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 29 March 2026

Cluster No.	Week (week start date)[1]	Province (City)	Details	Cluster type
1	3 (12 January 2026)	Western Cape (Cape Town)	1 respiratory case 1 asymptomatic carrier	Household/family
2	4 (19 January 2026)	Western Cape (Cape Town)	1 respiratory case 1 asymptomatic carrier	Household/family

[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 29 March 2026, 33 individuals were reported as suspected diphtheria cases and tested negative for *C. diphtheriae*. Alternative diagnoses became available for some of the individuals with suspected diphtheria, and included *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 29 March 2026, 19 individuals with non-toxigenic *C. diphtheriae* (13 asymptomatic, five cutaneous, one bacteraemia) have been detected (Table 4). The bacteraemia case (sepsis; endocarditis excluded), linked to a correctional facility, prompted an outbreak investigation while toxigenicity results were pending, leading to identification of 13 additional asymptomatic respiratory carriers. No further public health action was required after confirmation of non-toxigenic C. diphtheria.

Table 4: Number of non-toxigenic *C. diphtheriae* infections by species and clinical presentation, South Africa, 29 December 2025 to 29 March 2026.

Clinical presentation	*C. diphtheriae*	*C. belfantii*	*C. ulcerans*	Total
Asymptomatic	13	0	0	13
Cutaneous	5	0	0	5
Respiratory	0	0	0	0
Other*	1	0	0	1
Total	19	0	0	19

*One blood culture

Microbiology

All 15 toxigenic *C. diphtheriae* infections identified were culture-confirmed; of these, two isolates lost viability, leaving 13 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 = 9). 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 10 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 27–28 mm) (Figure 2) (1,2).

To date, sequence data are available for seven of 13 toxigenic *C. diphtheriae* isolates. The remaining six isolates have sequence results pending. All Western Cape Province isolates are sequence type (ST) 906 (n = 6), 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 *Corynebacterium* infections by sequence type and province, South Africa, 29 December 2025 to 29 March 2026.

Province	ST 906	ST 447	Pending	No sequence type available	Total
Gauteng	0	1	0	0	1
Western Cape	6	0	6	2	14
Total	6	1	6	2	15

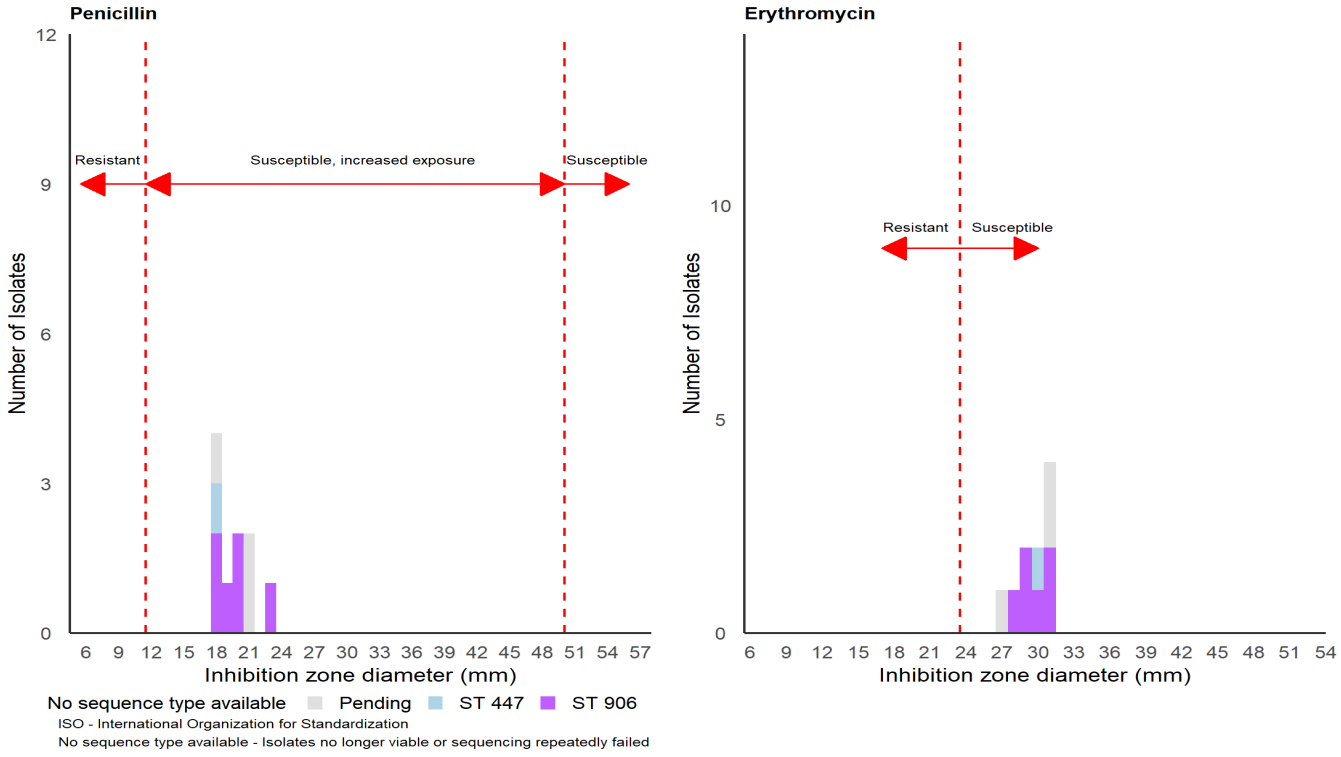

Figure 1: Antimicrobial susceptibility testing for toxigenic *C. diphtheriae* isolates from respiratory diphtheria cases, asymptomatic carriers, and cutaneous cases, South Africa, 2026 (N = 10). The red vertical dashed lines indicate the clinical breakpoints defined by the European Committee on Antimicrobial 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.

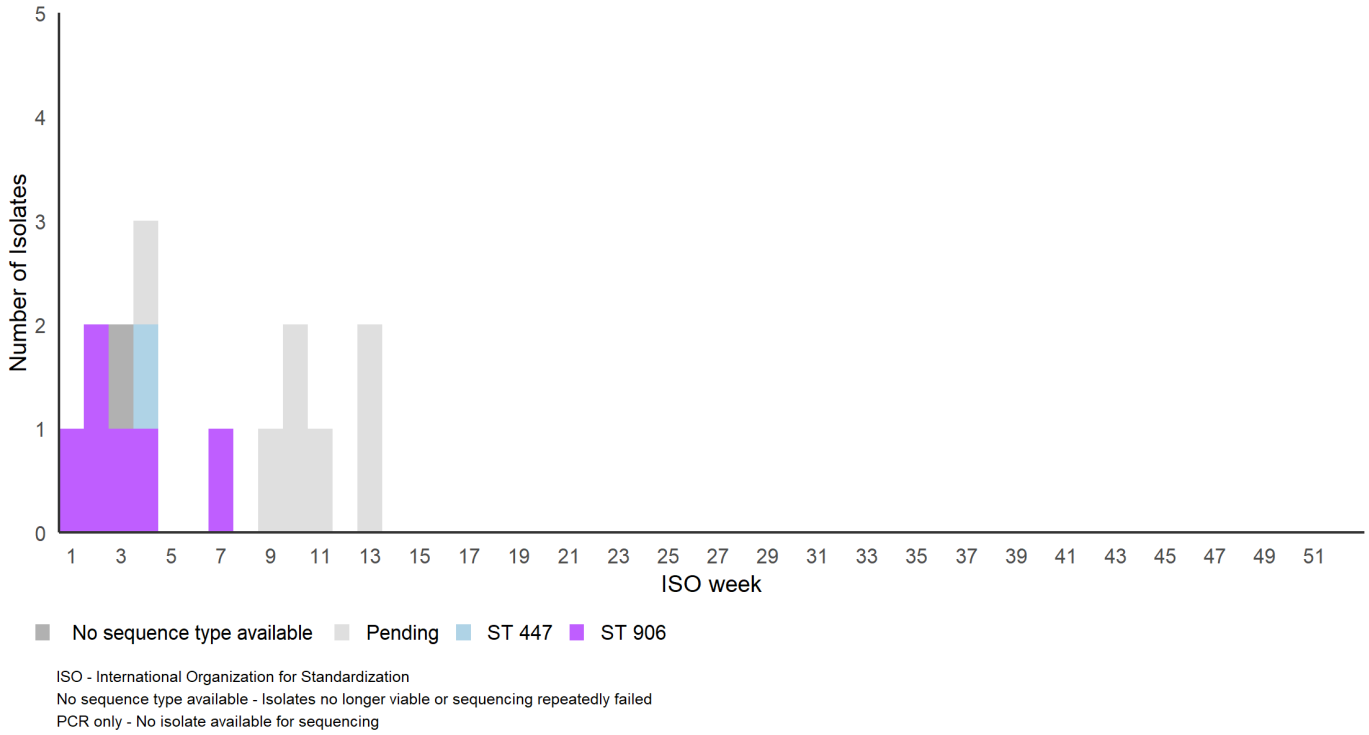

Figure 3: Number of individuals testing positive for toxigenic *C. diphtheriae* (respiratory diphtheria cases and asymptomatic carriers and cutaneous cases) by sequence type, South Africa, 29 December 2025 to 29 March 2026. **ISO:** International Organization for Standardization.

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. Corynebacterium diphtheriae and Corynebacterium ulcerans: development of EUCAST methods and generation of data on which to determine breakpoints. Berger A, Badell E, Åhman J, Matuschek E, Zidane N, Kahlmeter G, Sing A, Brisse S. J Antimicrob Chemother. 2024 May 2;79(5):968-976. doi: 10.1093/jac/dkae056. PMID: 384979