

Guillain Barré Syndrome (GBS) is a rare but serious heterogeneous autoimmune disease characterized by rapidly progressive, symmetrical limb weakness, areflexia, sensory abnormalities, and cyto-albuminologic dissociation in the cerebrospinal fluid. Molecular mimicry, antiganglioside antibodies and, likely, complement activation are involved in the pathogenesis of GBS. An upper respiratory or gastrointestinal illness typically precedes GBS. The most frequently identified precipitant of GBS is *Campylobacter jejuni* infection, which is usually associated with the acute motor axonal neuropathy form of GBS. The Pan American Health Organization as the regional office for the World Health Organization in the Americas issued a briefing note on July 10, 2023, regarding the unusual outbreak of GBS in different parts of Peru.



Between epidemiological weeks 1 and 27 (until 8 July 2023), 191 cases of GBS, which met the established case definition, have been reported. 77 of these cases were confirmed, including four deaths. The reported deaths were registered in January (one), March (one), and May (two).

In 2023, 59% of reported cases were males, with an average age of 41 (ranging from 2 to 86). 77 cases (40%) were adults between 30 and 59 years old, 51 cases (27%) were older adults (> 60 years), and 38 cases were children under 17 years of age.

During this outbreak of GBS in Peru, GBS was neurologically manifested with ascending muscle weakness in 131 cases (72%). Other clinical manifestations included gastrointestinal infections in 44 cases (23%), respiratory infections in 46 cases (24%), and a fever in 31



cases (16%).

Outbreaks of GBS are uncommon. National surveillance in Peru detected an unusual outbreak of Guillain Barré Syndrome in 2019, with a large number of cases. The incidence rate was nearly 25 times higher than expected and higher than previously reported GBS outbreaks. The outbreak of GBS affected several regions of the country, with over 900 cases. Based on the clinical and epidemiological characteristics, it was concluded that this outbreak was associated with *Campylobacter jejuni* genotype sequence type 2993, which has been associated with GBS outbreaks in China.

In 2020, 448 cases were reported, with a weekly average of 11 cases. In 2021, 210 cases were reported, with an average of four *per* week, in 2022, 225 cases were reported with an average of four *per* week. According to these data (excluding the 2019 outbreak), the average monthly number of registered GBS cases was below 20. However, between epidemiological weeks 23 and 27 in 2023, 96 cases per month were reported.

### **Reference**

Pan American Health Organization / World Health Organization. Briefing Note: Increase in case Guillain-Barré Syndrome Peru. 10 of July 2023, Washington, D.C.: PAHO/WHO; 2023 <https://www.paho.org/en/documents/briefing-note-increase-cases-guillain-barre-syndrome-peru>