

# Demographics of acute diverticulitis in a provincial New Zealand hospital

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## Background

Acute large bowel diverticulitis is a common general surgical presentation. Despite this, there is a paucity of epidemiological information available in the New Zealand (NZ) population. In other countries, ethnic disparities in prevalence, age of onset and anatomical location have been reported. Bay of Plenty District Health Board (BOPDHB) serves a population of approximately 230,000 people of which Māori comprise 24.9%. A national study of acute presentation of diverticular disease in NZ reported that Māori are less likely to present with acute diverticular disease but that the mean age of presentation was seven years younger compared to Europeans (1). This study sought to investigate whether ethnic disparities in acute diverticulitis presentations occur in a NZ provincial hospital.

## Methods

A retrospective review of patients admitted with an episode of acute diverticulitis at BOPDHB from January 1, 2012, to December 31, 2017 was performed, in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines. Endorsement from Toi Ora Māori Health Gains and Development was obtained.

## Location of CT proven diverticulitis

Right  
M: 2.4%  
NZE: 3.3%



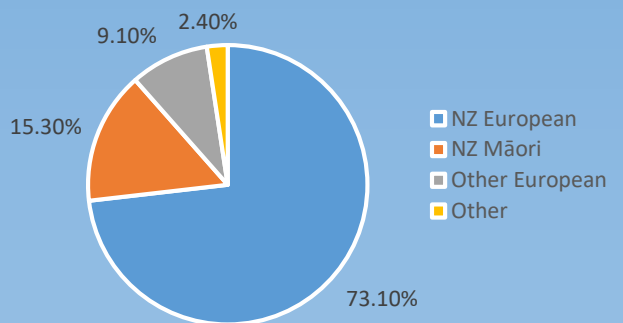
Left  
M: 95.2%  
NZE: 95.9%



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## Results

A total of 536 presentations of acute diverticulitis were identified. Of these, 73.1% (n=392) identified as NZ European (NZE) and 15.5% (n=82) as Māori. The average age at presentation for NZE patients was 9 years older than Māori ( $p < 0.05$ ). Ethnic disparities in disease severity and location were not observed.



Description	N (%)
Female	305 (56.9%)
Average age	61.4 NZE/Pakeha 52.4 NZ Māori
Complicated	172 (32.1%)
Average LOS*	3 (uncomplicated) 8.6 (complicated)
Ethnic Disparities	Complicated 31.9% NZE vs 34.1% Māori

## Conclusion

This study conveyed that NZE patients present at a more advanced age, and more frequently for acute diverticulitis, in comparison to Māori in our region. Despite this, no ethnic disparities were observed in disease location and severity. Further prospective analyses must be performed to better understand whether structural barriers to access affect rates of presentation per ethnicity.

## Reference

(1) Vather R, Broad JB, Jaung R, Robertson J, Bissett IP. Demographics and trends in the acute presentation of diverticular disease: a national study. ANZ J Surg. 2015;85(10):744–8.