

Numerical Data and Analysis Summary

Table 1 Total hospital (multi-day) and anorexia nervosa admissions for children <16 years in Western Australia, January-May 2017-2020

	2017 (n)	2018 (n)	2019 (n)	2020 (n)	2017-19 vs 2020 (%change)	P value
<i>Anorexia Nervosa</i>						
January	9	10	9	13	+39%	
February	11	6	5	17	+132%	
March	8	10	12	20	+100%	
April	9	8	13	20	+100%	
May	10	10	4	21	+163%	
January – May	47	44	43	91	+104%	p<0.001
<i>Total Hospital</i>						
January	1,110	1,172	1,175	1,230	+7%	
February	1,161	1,138	1,207	1,284	+10%	
March	1,287	1,143	1,371	1,194	-6%	
April	1,154	1,152	1,325	802	-34%	
May	1,348	1,152	1,491	1,042	-22%	
January – May	6,060	5,757	6,569	5,552	-9%	p<0.001

Research Hypothesis: Anorexia nervosa (AN) admissions are higher during COVID-19

To mitigate for any seasonal variability, only the months of January to May each year were considered. The first Australian case of COVID-19 was detected on 25th January 2020, with a state of emergency declared on the 15th of March 2020 in WA. Daily new COVID-19 cases have since dropped after reaching a peak of 43 new cases on the 29th of March 2020.

Regression analysis was performed.

Generalised Linear regression (R Core Team 2020)

- Association between year and count of admissions after adjusting for month
- $admissions \sim year + month$
- poisson(link = "log") (i.e. Poisson regression)

On average, anorexia nervosa admission rates were higher during 2020 (COVID-19) compared to 2017-2019 by a multiple of 2.04 (95% CI: 1.56 to 2.66) (p<0.001)

On average, total hospital admission rates were lower during 2020 (COVID-19) compared to 2017-2019 by a multiple of 0.91 (95% CI: 0.88 to 0.93) (p<0.001)