

19<sup>th</sup> October 2021

s9(2)(a)

[Redacted]

Dear s9(2)(a)

### Official Information Act Request for – Stroke Information

I write in response to your Official Information Act request received by us 21<sup>st</sup> September 2021 by way of partial transfer from the Ministry of Health (ref: H202110409), you requested the following information of the DHB:

1. **Of the total amount of strokes in NZ in 2019, 2020 and 2021:**
  - a. **How many of the victims where:**
    - i. **Overweight**
    - ii. **Diabetic**
    - iii. **High blood pressure / hypertension**
    - iv. **Atrial Fibrillation**
    - v. **High Cholesterol**
    - vi. **Smokers**
    - vii. **Identified as drinking alcohol regularly**
    - viii. **Where clinically depressed, or identified high stress levels**
    - ix. **Where medical misadventure strokes?**
2. **Of the total amount of strokes and in NZ in 2019, 2020 and 2021:**
  - a. **How many received thrombolysis treatment?**
  - b. **How many were referred to either the Stroke Foundation of New Zealand or Stroke Central New Zealand?**
    - i. **By region for Central Region**
  - c. **How many received some kind of rehabilitation treatment?**
  - d. **How many where secondary strokes?**
  - e. **How many resulted in disability?**

### Counties Manukau Health Response:

For context Counties Manukau Health (CM Health) employs over 8,500 staff and provides health and support services to people living in the Counties Manukau region (approx. 601,490 people). We see over 118,000 people in our Emergency Department each year.

We maintain a stroke register with stroke cases, demographic details, stroke types, and reperfusion times. The information you have requested is not routinely captured by CM Health however we have worked with our data analytics team to pull the information that we do have electronically captured. There are some data points that are unable to be captured and to obtain this information would involve manually searching through individual patient records.

1. Of the total amount of strokes in NZ in 2019, 2020 and 2021:

The table below reflects the total number of strokes we have had present at CM Health.

Total Stroke				
Discharge Year	Haemorrhagic	Ischaemic	Not defined	Grand Total
2019	118	892	10	1020
2020	161	923	10	1094
2021 till 30/09	101	579	4	684
<b>Grand Total</b>	<b>380</b>	<b>2394</b>	<b>24</b>	<b>2798</b>

a. How many of the victims were:

i. Overweight

Our data codes "Obesity" in the diagnostic list, though this is not the same as overweight. We have therefore run the analysis using "Obesity" codes.

Stroke with Obesity					
Discharge Year	Yes	No	Grand Total	% of Yes	
2019	59	961	1020	5.8%	
2020	158	936	1094	14.4%	
2021 till 30/09	147	537	684	21.5%	
<b>Grand Total</b>	<b>364</b>	<b>2434</b>	<b>2798</b>	<b>13.0%</b>	

ii. Diabetic

Stroke with Diabetes					
Discharge Year	Yes	No	Grand Total	% of Yes	
2019	363	657	1020	35.6%	
2020	365	729	1094	33.4%	
2021 till 30/09	261	423	684	38.2%	
<b>Grand Total</b>	<b>989</b>	<b>1809</b>	<b>2798</b>	<b>35.3%</b>	

iii. High blood pressure / hypertension

Stroke with HT					
Discharge Year	Yes	No	Grand Total	% of Yes	
2019	678	342	1020	66.5%	
2020	731	363	1094	66.8%	
2021 till 30/09	456	228	684	66.7%	
<b>Grand Total</b>	<b>1865</b>	<b>933</b>	<b>2798</b>	<b>66.7%</b>	

iv. Atrial Fibrillation

Stroke with AF					
Discharge Year	Yes	No	Grand Total	% of Yes	
2019	173	847	1020	17.0%	
2020	175	919	1094	16.0%	
2021 till 30/09	89	595	684	13.0%	
<b>Grand Total</b>	<b>437</b>	<b>2361</b>	<b>2798</b>	<b>15.6%</b>	

v. High Cholesterol

Stroke with High Cholesterol				
Discharge Year	Yes	No	Grand Total	% of Yes
2019	32	988	1020	3.1%
2020	36	1058	1094	3.3%
2021 till 30/09	28	656	684	4.1%
<b>Grand Total</b>	<b>96</b>	<b>2702</b>	<b>2798</b>	<b>3.4%</b>

vi. Smokers

Stroke with Smoking				
Discharge Year	Yes	No	Grand Total	% of Yes
2019	100	920	1020	9.8%
2020	114	980	1094	10.4%
2021 till 30/09	84	600	684	12.3%
<b>Grand Total</b>	<b>298</b>	<b>2500</b>	<b>2798</b>	<b>10.7%</b>

vii. Identified as drinking alcohol regularly

viii. Where clinically depressed, or identified high stress levels

ix. Where medical misadventure strokes?

In response to vii, viii and ix. As detailed above, this is not information that is specifically recorded in any of our databases and to provide this information would require a retrospective review of all individual medical health records. We have, therefore, determined to decline this element of your request under Section 18(f) of the Official Information Act due to substantial collation and research.

2. Of the total amount of strokes and in NZ in 2019, 2020 and 2021:

a. How many received thrombolysis treatment?

Thrombolysis numbers:

2019 – 102

2020 – 79

2021 until 30/09/2021 – 69

b. How many were referred to either the Stroke Foundation of New Zealand or Stroke Central New Zealand?

i. By region for Central Region

This is not information we routinely record. To provide this information would require a retrospective review of all individual medical health records. We have, therefore, determined to decline this element of your request under Section 18(f) of the Official Information Act due to substantial collation and research.

c. How many received some kind of rehabilitation treatment?

All our patients receive some form of MDT assessment i.e. they are assessed by Physiotherapy, Occupational Therapy and Speech Language Therapy where appropriate. We have defined this question as patients who have received inpatient rehab on our Adult General Rehabilitation Ward at CM Health and those who have received input by our Community Stroke Team (CSR).

Stroke Transferred to Adult General Rehabilitation Ward
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Discharge Year	Yes	No	Grand Total	% of Yes
2019	131	889	1020	12.8%
2020	148	946	1094	13.5%
2021 till 30/09	99	585	684	14.5%
<b>Grand Total</b>	<b>378</b>	<b>2420</b>	<b>2798</b>	<b>13.5%</b>

Stroke Referred to Community Stroke Team				
Discharge Year	Yes	No	Grand Total	% of Yes
2019	276	744	1020	27.1%
2020	285	809	1094	26.1%
2021 till 30/09	180	504	684	26.3%
<b>Grand Total</b>	<b>741</b>	<b>2057</b>	<b>2798</b>	<b>26.5%</b>

**d. How many were secondary strokes?**

This is not information we routinely record. To provide this information would require a retrospective review of all individual medical health records. We have, therefore, determined to decline this element of your request under Section 18(f) of the Official Information Act due to substantial collation and research.

**e. How many resulted in disability?**

This is not information we routinely record. To provide this information would require a retrospective review of all individual medical health records. We have, therefore, determined to decline this element of your request under Section 18(f) of the Official Information Act due to substantial collation and research.

**3. All of the above for TIA's?"**

TIA information for the above as follows:

TIA with Obesity				
Discharge Year	Yes	No	Grand Total	% of Yes
2019	10	334	344	2.9%
2020	49	308	357	13.7%
2021 till 30/09	49	263	312	15.7%
<b>Grand Total</b>	<b>108</b>	<b>905</b>	<b>1013</b>	<b>10.7%</b>

TIA with Diabetes				
Discharge Year	Yes	No	Grand Total	% of Yes
2019	90	254	344	26.2%
2020	89	268	357	24.9%
2021 till 30/09	84	228	312	26.9%
<b>Grand Total</b>	<b>263</b>	<b>750</b>	<b>1013</b>	<b>26.0%</b>

TIA with HT				
Discharge Year	Yes	No	Grand Total	% of Yes
2019	137	207	344	39.8%
2020	213	144	357	59.7%
2021 till 30/09	190	122	312	60.9%

<b>Grand Total</b>	<b>540</b>	<b>473</b>	<b>1013</b>	<b>53.3%</b>
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<b>TIA with AF</b>				
<b>Discharge Year</b>	<b>Yes</b>	<b>No</b>	<b>Grand Total</b>	<b>% of Yes</b>
2019	25	319	344	7.3%
2020	21	336	357	5.9%
2021 till 30/09	26	286	312	8.3%
<b>Grand Total</b>	<b>72</b>	<b>941</b>	<b>1013</b>	<b>7.1%</b>

<b>TIA with Smoking</b>				
<b>Discharge Year</b>	<b>Yes</b>	<b>No</b>	<b>Grand Total</b>	<b>% of Yes</b>
2019	17	327	344	4.9%
2020	19	338	357	5.3%
2021 till 30/09	24	288	312	7.7%
<b>Grand Total</b>	<b>60</b>	<b>953</b>	<b>1013</b>	<b>5.9%</b>

<b>TIA Transferred to Adult General Rehabilitation Ward</b>				
<b>Discharge Year</b>	<b>Yes</b>	<b>No</b>	<b>Grand Total</b>	<b>% of Yes</b>
2019		344	344	0.0%
2020	2	355	357	0.6%
2021 till 30/09		312	312	0.0%
<b>Grand Total</b>	<b>2</b>	<b>1011</b>	<b>1013</b>	<b>0.2%</b>

<b>TIA Referred to Community Stroke Team</b>				
<b>Discharge Year</b>	<b>Yes</b>	<b>No</b>	<b>Grand Total</b>	<b>% of Yes</b>
2019	17	327	344	4.9%
2020	17	340	357	4.8%
2021 till 30/09	4	308	312	1.3%
<b>Grand Total</b>	<b>38</b>	<b>975</b>	<b>1013</b>	<b>3.8%</b>

I trust this information answers your request. You are entitled to seek a review of the response by the Ombudsman under section 28(3) of the Official Information Act. Information about how to make a complaint is available at [www.ombudsman.parliament.nz](http://www.ombudsman.parliament.nz) or Freephone 0800 802 602.

Please note that this response or an edited version of this may be published on the Counties Manukau Health website. If you consider there are good reasons why this response should not be made publicly available, we will be happy to consider this.

Yours sincerely



**Fepulea'i Margie Apa**  
**Chief Executive Officer**  
**Counties Manukau Health**