

Routine Neutering Complication Rate

This document shows results of pooled data from 32650 routine surgical cases.

The results were created on 29/01/2018.

You can use the results from this pooled group data to compare with the results from your practice.

Total Results Submitted

The following represent the total and percentage representation of each of the 6 outcome groups:

Outcome	Frequency	Percent	Cum Percent
Abnormal but no treatment necessary	2795	8.6%	8.6%
Abnormal requiring medical treatment	2254	6.9%	15.5%
Abnormal requiring surgical intervention	341	1.0%	16.5%
Fatality of animal	29	0.1%	16.6%
Lost to follow-up	2604	8.0%	24.6%
No abnormality present	24627	75.4%	100.0%
Total	32650	100.0%	100.0%

95% Conf Limits		
Abnormal but no treatment necessary	8.3%	8.9%
Abnormal requiring medical treatment	6.6%	7.2%
Abnormal requiring surgical intervention	0.9%	1.2%
Fatality of animal	0.1%	0.1%
Lost to follow-up	7.7%	8.3%
No abnormality present	75.0%	75.9%

What does this mean?

This means if we re-sample the group 20 times we can be sure of getting a result for each group somewhere between the two stated figures in 19 of those samples.

I.e. we can be 95% confident that the true incidence of "lost to follow-ups" in this sample is between 7.7% & 8.3%.

Overall Complication Rate

The actual outcome of the cases that are “lost to follow-up” is however unknown. Although the percentage level overall is important in its own right we would be wrong to include them in the complication rate figures.

All the following results have had lost to follow-ups removed from the calculations.

The following table shows the overall results of post operative complications submitted to date.

Outcome	Frequency	Percent	Cum Percent
Abnormal but no treatment necessary	2795	9.3%	9.3%
Abnormal requiring medical treatment	2254	7.5%	16.8%
Abnormal requiring surgical intervention	341	1.1%	17.9%
Fatality of animal	29	0.1%	18.0%
No abnormality present	24627	82.0%	100.0%
Total	30046	100.0%	100.0%

The following table shows the statistical analysis of these results

95% Conf Limits		
Abnormal but no treatment necessary	9.0%	9.6%
Abnormal requiring medical treatment	7.2%	7.8%
Abnormal requiring surgical intervention	1.0%	1.3%
Fatality of animal	0.1%	0.1%
No abnormality present	81.5%	82.4%

So for example we can be 95% confident that the true level of abnormality but no treatment necessary is between 9.0% & 9.6%.

Specific Procedure Complication Rate

Outcome for Castrate Cat

Outcome	Frequency	Percent	Cum Percent
Abnormal but no treatment necessary	56	1.4%	1.4%
Abnormal requiring medical treatment	53	1.3%	2.7%
Abnormal requiring surgical intervention	23	0.6%	3.3%
Fatality of animal	3	0.1%	3.4%
No abnormality present	3885	96.6%	100.0%
Total	4020	100.0%	100.0%

95% Conf Limits		
Abnormal but no treatment necessary	1.1%	1.8%
Abnormal requiring medical treatment	1.0%	1.7%
Abnormal requiring surgical intervention	0.4%	0.9%
Fatality of animal	0.0%	0.2%

No abnormality present	96.0%	97.2%
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Outcome for Castrate Dog

Outcome	Frequency	Percent	Cum Percent
Abnormal but no treatment necessary	977	11.4%	11.4%
Abnormal requiring medical treatment	796	9.3%	20.6%
Abnormal requiring surgical intervention	61	0.7%	21.3%
Fatality of animal	6	0.1%	21.4%
No abnormality present	6763	78.6%	100.0%
Total	8603	100.0%	100.0%

95% Conf Limits		
Abnormal but no treatment necessary	10.7%	12.1%
Abnormal requiring medical treatment	8.7%	9.9%
Abnormal requiring surgical intervention	0.5%	0.9%
Fatality of animal	0.0%	0.2%
No abnormality present	77.7%	79.5%

Outcome for Spay Bitch

Outcome	Frequency	Percent	Cum Percent
Abnormal but no treatment necessary	1146	13.2%	13.2%
Abnormal requiring medical treatment	1020	11.8%	25.0%
Abnormal requiring surgical intervention	94	1.1%	26.1%
Fatality of animal	15	0.2%	26.3%
No abnormality present	6383	73.7%	100.0%
Total	8658	100.0%	100.0%

95% Conf Limits

Abnormal but no treatment necessary	12.5%	14.0%
Abnormal requiring medical treatment	11.1%	12.5%
Abnormal requiring surgical intervention	0.9%	1.3%
Fatality of animal	0.1%	0.3%
No abnormality present	72.8%	74.6%

Outcome for Spay Cat

Outcome	Frequency	Percent	Cum Percent
Abnormal but no treatment necessary	616	7.0%	7.0%
Abnormal requiring medical treatment	385	4.4%	11.4%

Abnormal requiring surgical intervention	163	1.9%	13.3%
Fatality of animal	5	0.1%	13.3%
No abnormality present	7596	86.7%	100.0%
Total	8765	100.0%	100.0%

95% Conf Limits

Abnormal but no treatment necessary	6.5%	7.6%
Abnormal requiring medical treatment	4.0%	4.8%
Abnormal requiring surgical intervention	1.6%	2.2%
Fatality of animal	0.0%	0.1%
No abnormality present	85.9%	87.4%
