

**TITLE:**

Outcomes of elective sterilization surgeries performed by veterinary students and shelter veterinarians in a shelter environment

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**ABSTRACT:** *300 word limit (when applicable, please include: purpose & background, methods, results, conclusions/discussion)*

**Objective:** The aim of this study was to determine the risk associated with students performing surgery as a part of a structured program in a shelter environment relative to shelter employed veterinarians (SEV). The goals of the study were via medical review to define the reported rates of complications for sterilization procedures performed by veterinary students, to characterize the complications and to compare these rates to shelter-employed veterinarians.

**Design:** Retrospective, cohort study.

**Animals:** 10,073 dogs and cats undergoing sterilization surgery in an urban animal shelter.

**Procedures:** All electronic medical records for dogs and cats with an intake date between 6/1/2012 and 9/30/2013 that underwent elective sterilization with a student or SEV were reviewed. Patient signalment, weight, surgical time, surgeon type (student or SEV), development and type of complications, and death/euthanasia were recorded for analysis.

**Results:** There was no difference between students and SEVs in any category evaluated, including total complications, minor complications and complications in dogs. The most common complications were self-limiting, with no long term consequences, for both students and SEVs. Differences in mortality between surgeon types could not be definitively determined due to the low number of events.

**Conclusion and Clinical Relevance:** With judicious case selection and as a part of a surgical training program, complications rates for student surgeries were not significantly different compared to complication rates for surgeries performed by SEVs.