

Prevention of Lacerations at Time of Operative Delivery: An Evaluation of Quality Improvement Interventions



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SCIENCES**

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INTRODUCTION

The primary objective of the study is to test the ability of a targeted intervention to decrease rates of vaginal or perineal lacerations occurring at the time of operative delivery. We used available evidence to implement an educational and clinical support program to promote operative delivery simulation and teaching. We hypothesized our quality improvement intervention supporting increased frequency of operative delivery simulation and training would show a decrease in the occurrence of lacerations following operative delivery.

OBJECTIVES

To test the ability of a targeted intervention to decrease rates of vaginal or perineal lacerations occurring at the time of operative delivery. We used available evidence to implement an educational and clinical support program to promote operative delivery simulation and teaching. We hypothesized our quality improvement intervention supporting increased frequency of operative delivery simulation and training would show a decrease in the occurrence of lacerations following operative delivery.

METHODS

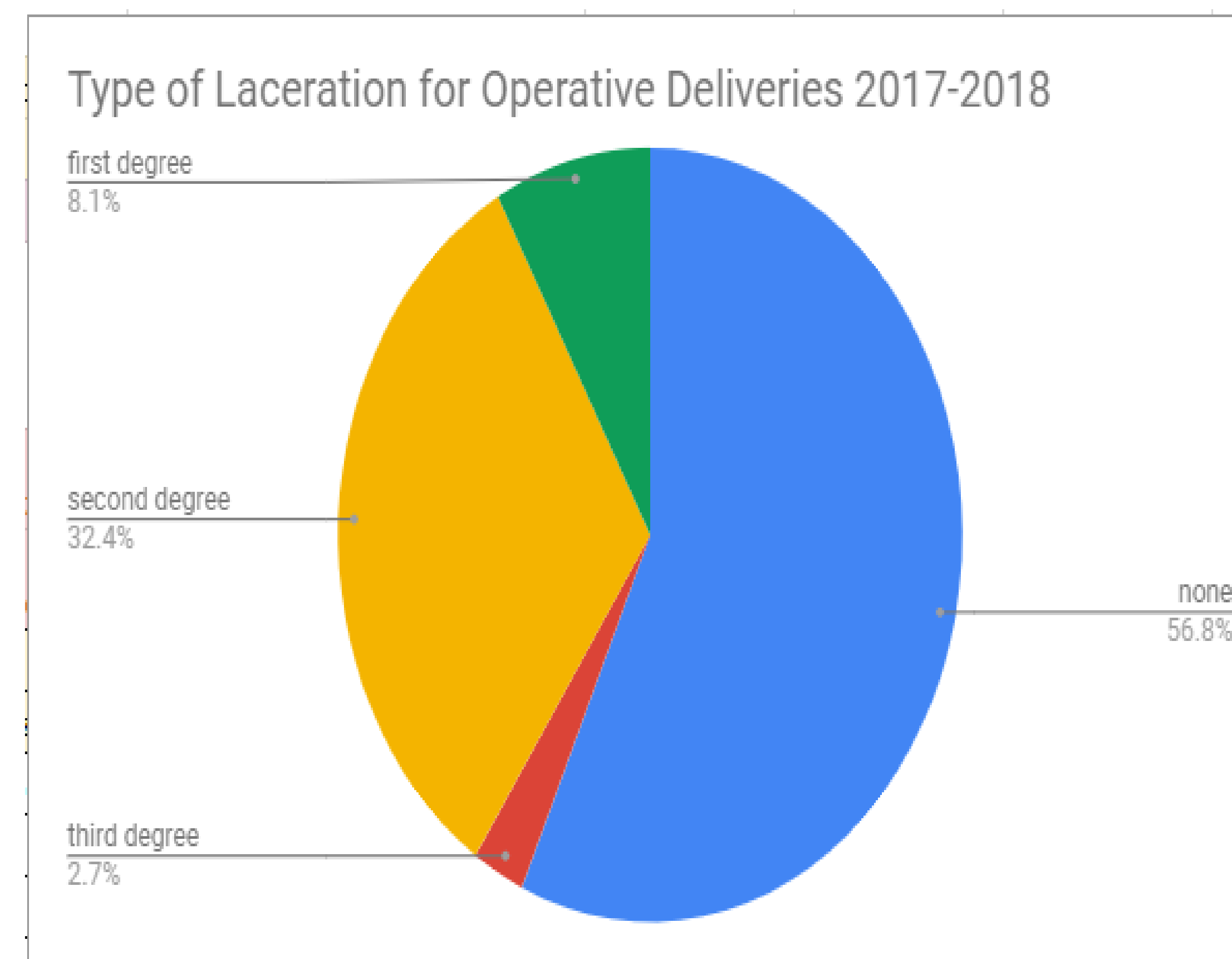
We conducted a retrospective cohort study following the implementation of our quality improvement initiative promoting more frequent operative delivery simulations and training to assess the association with a decrease in vaginal or perineal lacerations at the time of operative delivery. This quality improvement initiative was instituted at our academic care center in 2018. The program included a needs assessment, simulation of operative delivery, online educational material as well as expanded core outcome documentation following operative deliveries. We analyzed rates and types of operative vaginal deliveries at or beyond 35 weeks of gestation without a contraindication to operative delivery. We also analyzed rates of vaginal or perineal lacerations occurring after operative vaginal delivery using both vacuum and forceps instrumentation.

RESULTS

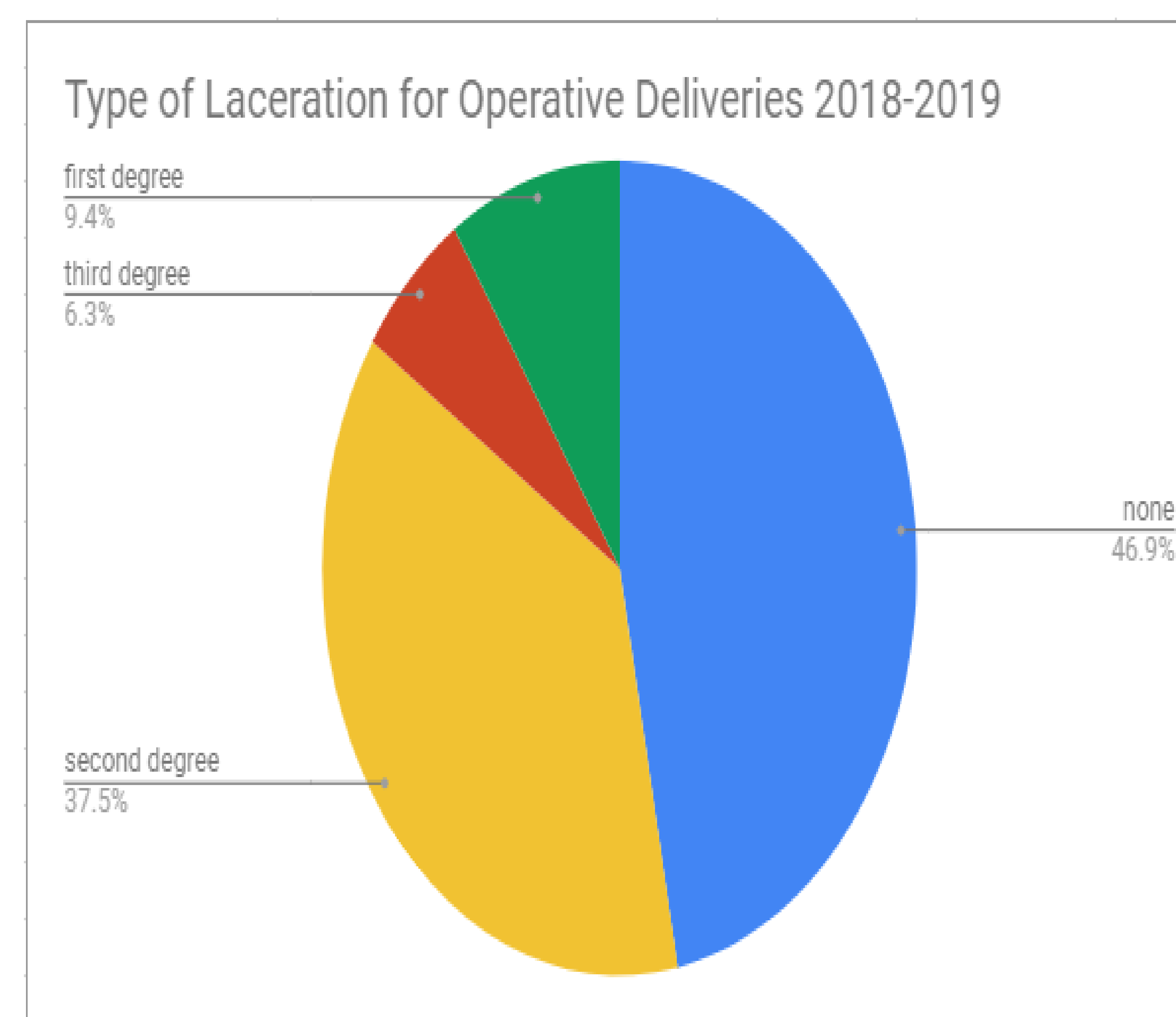
Out of the 37 operative deliveries between 2017-2018, 14 (38%) lacerations were documented in the delivery record. Of the lacerations documented, 3 (21%) were first degree lacerations, 10 (71%) were second degree lacerations, and 1 (1%) third degree lacerations. Of the 37 operative deliveries, 12 (32%) Forceps deliveries and 25 (68%) Vacuum assisted deliveries were documented.

Out of the 32 operative deliveries between 2018-2019, 18 (56%) lacerations were documented in the delivery record. Of the 18 lacerations documented 4 (22%) were first degree lacerations, 12 (67%) were second degree lacerations, and 2 (11%) were third degree lacerations. Of the 32 operative deliveries, 13 (41%) Forceps deliveries and 19 (59%) Vacuum assisted deliveries were documented.

Lacerations in 2017-2018



Lacerations in 2018-2019



CONCLUSION

At the initiation of this study we aimed to prove an intervention that included systematic promotion and support of increased frequency of operative delivery simulation training/simulation with hopes to show a decrease in the rate of vaginal or perineal laceration at the time of operative delivery.

In conclusion, our preliminary data seem to suggest that the use of simulations of operative deliveries involving forceps and/or vacuums have decreased the occurrence of obstetrical lacerations that are consequences of operative deliveries.

These results will be used to assess flaws within our simulation training and will be further used as a prospective study for future quality improvement projects.



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