



Effects of a COVID-19 Testing Policy on No-Show Rates for Aerosol Generating Procedures

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Background/Objective

- In March 2020, the COVID-19 pandemic began to affect all aspects of life in the United States. The primary transmission pathway for pathogens of COVID-19 is airborne or respiratory droplets.
- Many professions performing aerosol-generating procedures (AGPs) were deemed high-risk for transmission of COVID-19. In dentistry, AGPs are defined by use of equipment, which includes high-speed handpieces and ultrasonic scalers.
- In July 2020, a policy was implemented in the pediatric dental clinic (PDC) at NYC Health + Hospitals / Bellevue (Bellevue) that required proof of a negative COVID-19 test within 5 days prior to AGP appointments.
- The purpose of this study was to determine whether the required COVID-19 test had any impact on no-show rates, number of quadrants completed per visit, and number of days between a patient's AGP appointments in Bellevue's PDC.

Methods

- This case-control retrospective chart review was approved by NYU Langone IRB (s21-00877) and NYCH +H's STAR (00003347)
- Inclusion criteria:** age 4-17, diagnosed with dental caries, and scheduled for an AGP pre-COVID policy (Oct 2019 to Feb 2020 and during COVID-policy (Oct 2020 to Mar 2021)
- Exclusion criteria:** subjects with ultrasonic scaler appointments
- Data collected for each subject included: patient demographics, date of scheduled visit, visit status, number of quadrants completed per visit, and number of days between each scheduled visit.
- Data was compared for both the control and case group using chi-square and t-test using the statistical software, JASP (CI=95, $P<0.05$)

Results

- 500 subjects were included in this study: 250 patients during the pre-policy control group and 250 patients in the COVID policy group.
- A total of 812 scheduled AGP visits at Bellevue's PDC was found.
- There was no statistical difference in no-show rates (missed visits) before and during the COVID policy, even when compared by age and sex.

Figure 1: Number of Quadrants Completed per AGP Visit Pre-COVID Policy and During COVID Policy ($P<0.001$)

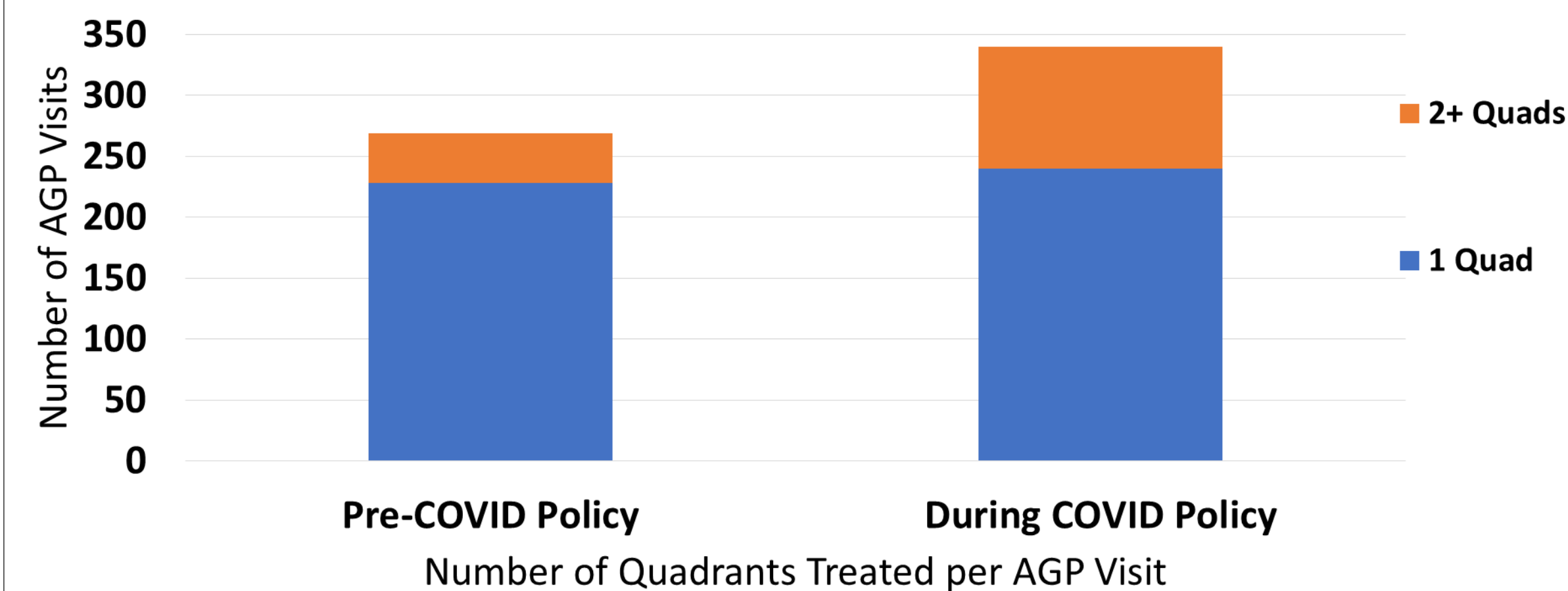


Figure 2: Number of Days Between Subsequent AGP Visits Pre-COVID Policy and During COVID Policy ($P<0.001$)

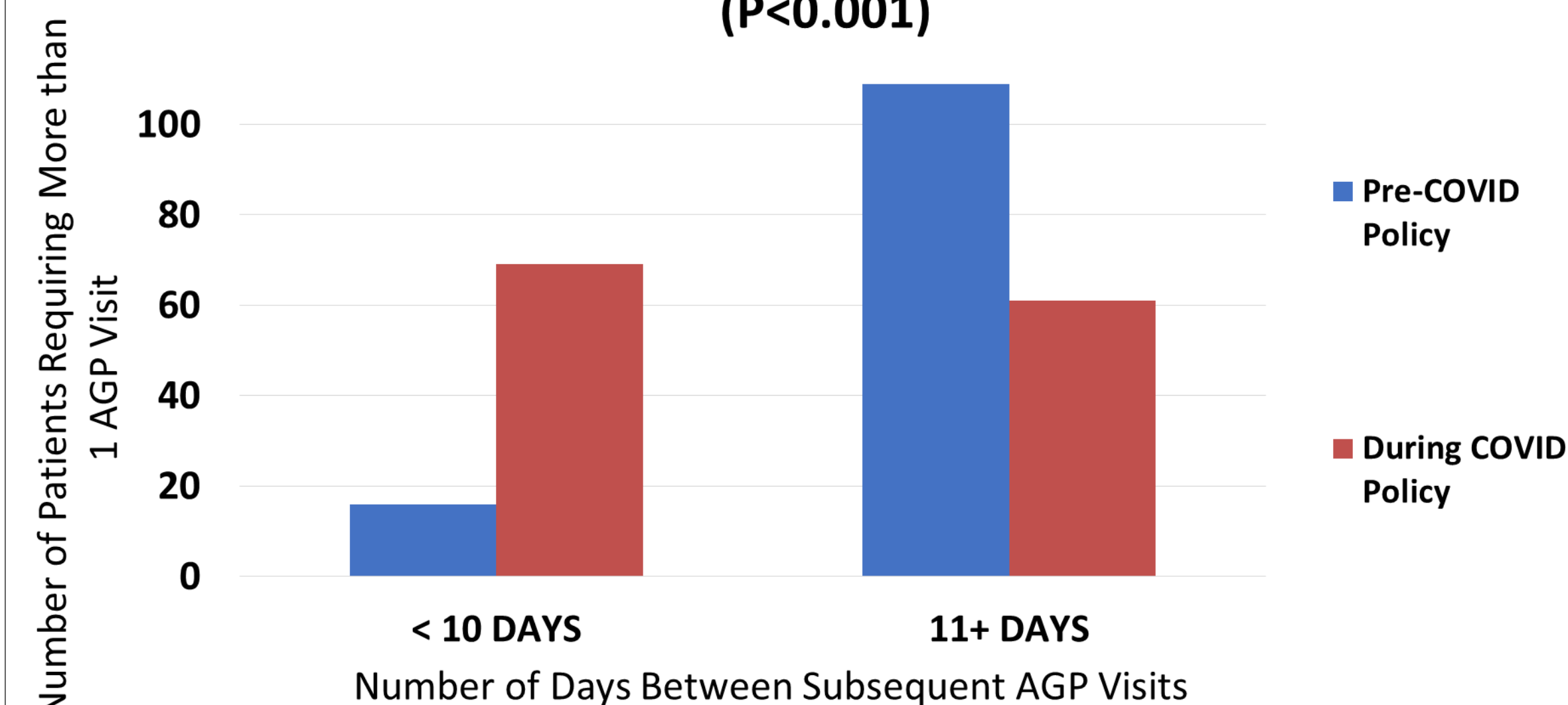


Table: Scheduled AGP Visits Pre-COVID Policy and During COVID Policy by Patient Demographics and Visit Status

	Pre-COVID Policy (%)	During COVID Policy (%)
Scheduled AGP Visits	367 (100)	445 (100)
By Age (Years)		
4-6	84 (23)	102 (23)
7-12	181 (49)	188 (42)
13-17	102 (28)	155 (35)
By Sex		
Male	172 (47)	188 (42)
Female	195 (53)	257 (58)
Completed AGP Visits	270 (74)	340 (76)
Missed Visits	97 (26)	105 (24)
Patients Who Returned for >1 AGP Visit	125 (34)	130 (29)

Conclusions/Summary

- A mandatory COVID-19 testing policy did not have any impact on no-show rates for AGP visits at Bellevue's PDC.
- During this policy, PDC providers were able to complete more quadrants of work per visit, and patients had a smaller interval of days between visits as compared to before. Both findings may be a result of the mandatory COVID-19 test, as a means to reduce the frequency of taking the test. However, further research is needed to make this conclusion.
- This testing policy was repealed in late 2021; it would be interesting to further study if its repeal had any effect on these outcomes.

References

- Villani, F.A., Aiuto, R., Paglia, L., & Re, D. COVID-19 and Dentistry: Prevention in Dental Practice, a Literature Review. Int J Environ Res Health 2020;17(12):4609

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