Retrospective Review of Post-Operative Follow up for Routine Care of Pediatric Dental Patients Following Full Mouth Oral Rehabilitation Under General Anesthesia

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BACKGROUND

- Dental caries is the most common chronic disease of childhood and affects 42% of children age 6-11
- Dental caries has a negative impact on children's overall health and quality of life
- Children 3x more likely to miss school which is associated with poor academic performance
- General anesthesia is a necessary behavior guidance technique to manage ECC and S-ECC
- Routine follow up is important to monitor treatment and growth patterns, reinforce prevention, and improve patient provider trust
- According to the AAPD, recall/follow up intervals should be 3, 6, or 12 months depending on patient's caries risk (see below)

Table 3. Example of Caries Management Pathways for 0-5 Years Old

Risk category	Diagnostics	Preventive interventions			Restorative interventions
		Fluoride	Dietary counseling	Sealants	
Low risk	– Recall every six to 12 months – Radiographs every 12 to 24 months	– Drink optimally-fluoridated water – Twice daily brushing with fluoridated toothpaste	Yes	Yes	– Surveillance
Moderate risk	– Recall every six months – Radiographs every six to 12 months	– Drink optimally-fluoridated water (alternatively, take fluoride supplements with fluoride-deficient water supplies) – Twice daily brushing with fluoridated toothpaste – Professional topical treatment every three months	Yes	Yes	– Active surveillance of non-cavitated (white spot) caries lesions – Restore cavitated or enlarging caries lesions
High risk	– Recall every three months – Radiographs every six months	– Drink optimally-fluoridated water (alternatively, take fluoride supplements with fluoride-deficient water supplies) – Twice daily brushing with fluoridated toothpaste – Professional topical treatment every three months – Silver diamine fluoride on cavitated lesions	Yes	Yes	– Active surveillance of non-cavitated (white spot) caries lesions – Restore cavitated or enlarging caries lesions – Interim therapeutic restorations (ITR) may be used until permanent restorations can be placed

OBJECTIVES

- Determine frequency of pediatric dental patients return to clinic for routine care following full mouth oral rehabilitation (FMOR) under general anesthesia (GA)
- Identify demographic trends that may be associated with poor follow up
- Recommend clinic policy changes where necessary

MATERIALS/METHODS

- This study received UNMC IRB approval (0816-22-EP)
- Retrospective chart review of patients who underwent FMOR with UNMC Pediatric Dentistry at Children's Outpatient Surgery Center
- Inclusion criteria
  - Surgery in 2019
  - ASA I/II
  - Age 1-9 years old
- 247 charts qualified
- 241 charts included
- Follow up period: 1/1/2019 to 10/31/2022
- Demographic data gathered
  - Age
  - Language spoken (English, Spanish, other)
  - New patient vs existing patient
  - Insurance type or no insurance
  - Distance from clinic to residence (based off zip codes)

RESULTS

Return by language spoken

Language	1-24 months	2+ years/ no return	Total
English	42 (29%)	102 (71%)	144
Spanish	8 (35%)	15 (65%)	23
Other	16 (22%)	58 (78%)	74
Total	**66**	**175**	**241**

Chi-square revealed an insignificant relationship between language spoken and follow up p>.05

Return by age

Age	1-24 months	2+ years/ no return	Total
<4	25 (39%)	39 (61%)	64
4+	41 (23%)	136 (77%)	177
Total	**66 (27%)**	**175 (73%)**	**241**

Fischer's exact test revealed a significant relationship between age at time of surgery and follow up. p=0.0214

New patient vs patient of record

Patient Type	1-24 months	2+ years/ no return	Total
Patient of record	35 (54%)	30 (46%)	65
New patient	30 (17%)	146 (83%)	176
Total	**65**	**175**	**241**

Fischer's Exact Test revealed a significant relationship between patient type and follow up P <.05

CONCLUSIONS

- The study shows that insurance type, language spoken, or distance traveled have no significant affect on patient follow up
- No definitive conclusion can be made as to why younger patients have better follow up rates
- Overall follow up rates are poor and below averages compared to similar studies
- Improvements are needed in provider to parent communication to make sure parents understand the importance of routine care
- Poor follow up for routine care supports the completion of definitive treatment when using advanced behavior guidance techniques like GA

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