

Retrospective Evaluation of the Medical Genetics Referral Practices in a Dental School Setting

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Objectives: Craniofacial anomalies can occur in over 700 genetic syndromes with dentists being one of the first providers to recognize the oral signs thus aiding in diagnosis and proper referral to genetics services. There is no current existing genetics dental clinic or genetics referral service at UTHealth Houston School of Dentistry (UTSOD). We hypothesized that there was an underlying unmet need for dental genetics referral at UTSOD. The aim of this study was to retrospectively evaluate the referral practices for dental genetics and propose an appropriate referral protocol.

Experimental Methods: 2500 dental charts (2011-2023) were reviewed. Medical history, known family history of dental-related genetic conditions, and clinical notes were used to identify patients with genetic needs. An outside medical genetics clinic was consulted to develop future referral protocol guidelines. Data was analyzed using analysis of variance statistical test with p-values <.05 considered significant.

Results: Data was patient reported due to the lack of integration of dental and medical EHR systems. Only 1 patient had a documented referral to medical genetics. There was a significant difference in confirmation of medical diagnosis and dental findings by clinic type. ($p < 0.001$). The Pediatric Dentistry Clinic (PDC) had lowest rates of unconfirmed medical diagnosis (8.5%) with the Predoctoral Clinic having the highest (93%). 95.7% of PDC patients needed medical genetics referral due to extensive medical history as compared to 18.75% from Orthodontics Clinic (OC). The PDC treats patients with many special healthcare needs so medical genetics referrals were higher than the OC and had more successful diagnostic confirmation possibly due to increased medical considerations for their patient population.

Conclusion: Our data indicated differences between disciplines in genetics referral practices, indicating a need for a formal referral process at UTSOD. All clinics should have clear communication pathways to discuss concerns with medical genetics and refer patient timely.

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