

# Perceptions of United States Dermatology Resident Program Directors Regarding Oral Mucosal Dermatology Training

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## INTRODUCTION

The examination of mucosal surfaces is a crucial portion of a complete dermatologic examination,<sup>1</sup> and may provide invaluable clues for the diagnosis of mucocutaneous or systemic disease. The frequency of mucosal examinations, however, varies widely among dermatologists and such surfaces are among the least often examined during a clinical encounter.<sup>2,3</sup> Hypotheses for these observations range from patient preference, patient perceived discomfort during evaluation, a low prevalence of malignancy, expectation that other specialists examine these areas, differences in training, and lack of formal training and experience in the evaluation of oral mucosae. To our knowledge, only one study exists evaluating knowledge, training, and practice patterns among dermatologists when evaluating and treating oral mucosae.<sup>4</sup> Among the parameters queried, 54 of 88 (61%) practicing dermatologists in the United Kingdom responded that their training in oral medicine was inadequate for the scope of their clinical practice.<sup>4</sup> This study attempts to evaluate the scope of residency training and provide foundational data regarding the current state of education regarding oral mucosal dermatology in the United States (US).

A total of 142 dermatology residency training programs were identified via the Accreditation Council for Graduate Medical Education public program search database. An anonymous REDCap cross-sectional survey was distributed to program directors (PDs) of all dermatology residency training programs. This study was exempt by the New York University Langone Health Institutional Review Board. Thirty-two completed surveys (22.5% of all dermatology residencies) were obtained. All geographic regions were represented. Table 1 outlines program characteristics. Table 2 summarizes PDs' opinions of and confidence in residents' abilities regarding oral mucosal dermatology and displays available teaching resources in residency and practice patterns among residents. Scores on the Likert-type scale of "4" or "5" were classified as the PD acknowledging importance in the field of dermatology or affirming confidence in the residents' ability in various settings. To our knowledge, this study is the only of its kind to evaluate

US training of dermatologists in oral mucosal disorders. Understanding the current climate of residency training in oral mucosal disorders enables the identification of deficiencies to more thoroughly prepare residents for clinical practice. This study evaluated PDs' confidence in the ability of their residents in several areas. About 34.3% expressed confidence in their resident's ability to recognize normal variants of the oral cavity, diagnose oral mucosal diseases (37.6%), and perform procedures on the oral mucosa (40.6%). Furthermore, only 63.3% of PDs reported that their residents routinely examine the oral mucosa as part of the total body skin examination. Inconsistent oral mucosal evaluation as part of the physical examination during resident training may be a contributing factor to the reported

TABLE 1.

Characteristics of Programs Surveyed, n (%)	
Practice Setting	
Primarily Rural	2 (6.7)
Primarily Suburban	7 (21.0)
Primarily Urban	17 (53.3)
Mixed	6 (19.0)
Location in the United States	
Western	2 (6.2)
Rocky Mountain	3 (9.4)
Midwest	6 (18.8)
South Central	2 (6.2)
South East	6 (18.8)
Northeast	13 (40.6)
Number of residents in program	
8 or less	7 (22.0)
9 to 18	16 (50.0)
19 or more	9 (38.0)
Didactic time to oral mucosal dermatology (hours)	
0	2 (6.3)
1 to 5	23 (71.8)
6 or more	7 (21.9)

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TABLE 2.

**Program Directors' Opinions of and Confidence in Residents' Abilities Regarding Oral Mucosal Dermatology, n (%)**

How important do you believe a strong knowledge of oral mucosal diseases is within dermatology? (1 = not very important to 5 = very important)

1	1 (3.1)
2	1 (3.1)
3	9 (28.1)
4	12 (37.6)
5	9 (28.1)

How confident do you believe your dermatology residents are in recognizing normal variants of the oral cavity? (1 = not very confident to 5 = very confident)

1	2 (6.3)
2	3 (9.4)
3	16 (50.0)
4	9 (28.0)
5	2 (6.3)

How confident do you believe your dermatology residents are in diagnosing oral mucosal disease? (1 = not very confident to 5 = very confident)

1	1 (3.1)
2	2 (6.3)
3	16 (50.0)
4	11 (31.3)
5	2 (6.3)

How confident do you believe your dermatology residents are in performing oral mucosal procedures (ie biopsies and suturing)? (1 = not very confident to 5 = very confident)

1	4 (12.5)
2	6 (18.8)
3	9 (28.1)
4	10 (31.2)
5	3 (9.4)

**Resources available in dermatology residencies and current practices regarding oral mucosal dermatology, n (%)**

Does your institution have an affiliated dental school?

Yes	9 (28.1)
No	23 (71.9)

Does your program have a faculty member with an interest in oral mucosal diseases (excluding immunobullous diseases)?

Yes	6 (18.8)
No	26 (81.2)

Does your program have an oral pathologist that is accessible to department members?

Yes	16 (50.0)
No	16 (50.0)

Does your program have a specialty clinic focusing solely on oral mucosal diseases?

Yes	1 (3.1)
No	31 (96.9)

Do your dermatology residents routinely examine oral mucosa as part of the total body skin examination?

Yes	21 (65.6)
No	11 (34.4)

low confidence of PDs in their residents' abilities. In this light, emphasis on the examination of the mouth during training may bolster trainees' familiarity with both normal anatomy and pathology.

Few programs had faculty with interest in oral mucosal dermatology and only one program had a specialty clinic focusing on evaluation of the oral mucosa. However, roughly a third of programs have an affiliated dental school, and about half have an oral pathologist accessible to residents. When dermatology faculty may not be available, collaboration with dental training programs may fill training gaps.

Based on these findings, dermatology resident training in oral disorders is overall lacking. Our study does have significant limitations. A low sample size and response bias among responding programs limit the generalizability of our conclusions. However, our responses are concordant with those of the only other study evaluating oral medicine education among practicing dermatologists.<sup>4</sup>

**DISCLOSURES**

The authors report no conflict of interest. This article is exempt from IRB approval.

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