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Abstract: Referrals of Plastic Surgery Patients to Integrative Medicine Centers: A Review of Resource Utility

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Affiliation: Washington University School of Medicine, Saint Louis, MO

INTRODUCTION: The evaluation and management of emergency department (ED) consults is an essential competency in plastic surgery residency. Trainees usually perform these duties under indirect attending supervision. However, no formal curriculum exists to prepare trainees for the requirements of on-call coverage and there is minimal literature on the frequency and nature of ED consults requiring plastic surgery evaluation. The purpose of this study is to determine the most common consults and procedures necessitating ED plastic surgery management in an effort to prepare trainees, prior to on-call coverage, in the core diagnostic and procedural skills required in the ED.

METHODS: This is a prospective study of all overnight emergency department consultations to plastic surgery from October 2015 to October 2016 at a large tertiary referral center with a 9-state catchment area. Patient demographics and clinical characteristics were documented, including age, sex, level of acuity, all diagnoses, mechanism of injury, and all procedural treatments performed by plastic surgery residents in the ED.

RESULTS: A total of 1100 patients sustaining 1782 distinct injuries were evaluated and treated in the ED by plastic surgery residents on call. Residents performed 1237 total procedures. The ten most common consults were for distal radius fractures (N=100, 5.6% of total injuries sustained), distal phalanx fractures (N=89, 5.0%), nasal bone fractures (N=87, 4.9%), metacarpal fractures (N=86, 4.8%), orbital fractures (N=82, 4.6%), finger lacerations (N=74, 4.2%), nail bed injuries (N=73, 4.1%), mandible fractures (N=68, 3.8%), lip lacerations (N=66, 3.7%), and traumatic finger amputations (N=63, 3.5%). The ten most common procedures performed were finger/hand laceration repairs (N=128, 10.3% of all procedures), closed reduction of distal radius fractures (N=97, 7.8%), nail bed repairs (N=69, 5.6%), closed reduction of metacarpal fractures (N=67, 5.4%), closed reduction of distal phalanx fractures (N=66, 5.3%), lip laceration repairs (N=66, 5.3%), incision/drainage of finger infections (N=46, 3.7%), zone IV to zone VII extensor tendon repairs (N=46, 3.7%), revision-amputations (N=42, 3.4%), and closed reduction of nasal bone fractures (N=40, 3.2%).

CONCLUSION: This study identifies the most common consults evaluated, and procedures performed, by plastic surgery residents in the emergency department. We encourage programs to adopt a curriculum that emphasizes early and graduated training in these critical diagnostic and procedural skills to prepare trainees to provide high quality care.

Referrals of Plastic Surgery Patients to Integrative Medicine Centers: A Review of Resource Utility

Presenter: Austin D. Chen, BS

**Co-Authors: Qing Zhao Ruan, MD;
Bernard T. Lee, MD, MBA, MPH, FACS;
Dhruv Singhal, MD**

Affiliation: Beth Israel Deaconess Medical Center / Harvard Medical School, Boston, MA

INTRODUCTION: Integrative medicine (IM) centers are becoming increasingly more established nationwide and provide an expansive range of therapeutic services. With a high prevalence of IM usage among plastic surgery patients,¹ we seek to define the rate of referrals to IM centers by plastic surgeons to define resource utility.

METHODS: Institutions with plastic surgery residency programs and IM centers were identified. A survey questionnaire was sent to center directors to ascertain referral patterns.

RESULTS: Out of a total of 96 institutions with plastic and reconstructive surgery programs in North America, 24(25%) have affiliated named IM centers, of which we attained a survey response from 13 (54.5%). 10 (76.9%) of these centers evaluate over 50 patients per week. Patient referrals were primarily from the Department of Medicine (73.8%) as opposed to Surgery (13.1%) ($p<0.0001$). An average of 0.77% of surgical referrals, or 0.077% of all referrals, arise from plastic and reconstructive surgery.

CONCLUSION: IM centers surveyed are infrequently referred patients from plastic surgeons. Given the high prevalence of IM usage among our

patient population, IM centers are an underutilized adjunct in the care of our patients. Further study into specific IM services that may benefit our patients would be helpful in increasing IM utilization in our field.

Referral Citations:

1. Patel N, Pierson J, Lee T, et al. Utilization and Perception of Integrative Medicine Among Plastic Surgery Patients. *Ann Plast Surg.* Oct 17 2016.

Failure to Graduate from Plastic & Reconstructive Surgery Residency: A 10- Year Analysis

Presenter: Charalampos Siotos, MD

Co-Authors: Rachael M. Payne, BS; Scott D. Lifchez, MD; Damon S. Cooney, MD, PhD; Gedge D. Rosson, MD; Carisa M. Cooney, MPH

Affiliation: Johns Hopkins University School of Medicine, Baltimore, MD

INTRODUCTION: During the 2015–2016 academic year, plastic surgery residents accounted for nearly 4.2% of surgical residents and 0.8% of residents overall. While the number of residency programs and allotted residency positions in plastic surgery have been steadily increasing in recent years, little information exists regarding residents who are accepted for plastic surgery residency but never make it to graduation. This knowledge is important for informing expectations of plastic surgery residency program directors and managing the residency programs in general. We sought to evaluate the rates of failure to graduate and associated factors.

METHODS: We evaluated information on residents in surgery and surgical subspecialties during the 2007–2016 academic years that was provided by the Accreditation Council for Graduate Medical Education (ACGME). Total number of graduating residents each year and total number of residents who failed to graduate were extracted in addition to factors causing discontinuation of residency. Ratios and proportions were calculated to estimate potential differences among rates of failure across time and among different surgical subspecialties.

RESULTS: Our analysis indicates that overall, on average, for every 14.3 residents graduating there is one resident who will not graduate. For the surgical specialties, the ratio is smaller at 8.96:1, indicating that surgical residents are more likely to not complete their residency. In particular, for integrated plastic surgery programs the overall ratio is 6.9:1 (range: 4:1 to 17:1) and for the independent programs this ratio is 3.8:1 (range: 1:1 to 43:1). Of those cases where reasoning was known, more than 50% of the plastic surgery residents withdrew, 35% transferred to a different program, and 10% were dismissed.

CONCLUSION: Our findings indicate that plastic surgery residents are more likely to discontinue their initial training program prior to completion compared to residents in other surgical and medical specialties. The most common reason is voluntary withdrawal. Because of this, it is essential to investigate possible barriers to pursuing plastic surgery residency including motivations for voluntary withdrawal and to provide adequate education to medical students to adjust their expectations prior to selecting this residency.

Evolution of the Plastic Surgery Workforce

Presenter: Charalampos Siotos, MD

Co-Authors: Rachael M. Payne, BS; David Cui; Gedge D. Rosson, MD; Carisa M. Cooney, MPH

Affiliation: Johns Hopkins University School of Medicine, Baltimore, MD

INTRODUCTION: The field of plastic surgery consists of a dynamic workforce. Assessing workforce diversity over time is essential to understanding how the field has evolved and anticipating its future. For these reasons, we conducted the current study to evaluate gender, racial/ethnic, and duty trends in the field of plastic surgery over the past decade.

METHODS: We evaluated data acquired by the American Medical Association and the Accreditation Council for Graduate Medical Education. We extracted data from 2000 to 2015 including the overall number of plastic surgeons, surgeon race/