

Figure 1. A sterilized hockey placed on the surgical tray before beginning surgery.

minimal additional space on the surgical tray. This provides the optimal setting for the surgeon to precisely form the cartilage graft (Figure 2) while minimizing the risk of inadvertent graft mishandling or a sharps injury. Another benefit of this method is the cost-effectiveness, with hockey pucks widely available to purchase for a few dollars.

Discussion

The use of a rubber hockey puck is a cost-effective, optimal solution to the surgical challenge of stabilizing a cartilage graft during sizing and shaping. In our practice, we believe this method reduces the risk of accidental graft mishandling and sharps injury to the surgeon, while improving the ability to finely carve the graft to its desired size and shape.



Figure 2. Surgeon shaping the cartilage graft on the hockey puck.

References

- 1. Otley CC, Sherris DA. Spectrum of cartilage grafting in cutaneous reconstructive surgery. J Am Acad Dermatol 1998;39:982–92.
- Sage RJ, Leach BC, Cook J. Antihelical cartilage grafts for reconstruction of mohs micrographic surgery defects. *Dermatol Surg* 2012;38:1930–7.

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Commentary on "A Step Toward Environmental Sustainability in Mohs Surgery"

e commend Leonard and colleagues¹ for their article that discusses sustainability in Mohs Surgery. Specifically, the authors highlight the use of a hyfrecator or electrodessication device in Mohs surgery over the standard practice of using a full electrosurgical unit. In addition, they also discussed the environmental and economic benefits associated with these sustainability proposals. We aim to expand on the suggestions of Leonard and colleagues¹ by providing additional sustainability perspectives, including sterile versus nonsterile gloves, intraoperative resource management, and office supply use.

Mohs surgeons may consider their environmental impact in their use of sterile versus nonsterile gloves. Rhinehart et al. demonstrated that there was not a statistically significant difference in the infection rates between procedures performed with sterile gloves versus those performed with nonsterile, clean gloves.² In particular, patients that underwent Mohs surgery with sterile gloves had an overall infection rate of 1.7%, whereas patients in the nonsterile group had an overall infection rate of 1.8% (p > .05). Nonsterile gloves are cost-effective (\$11.72 less per surgery), assuming 2 pairs are used for each procedure.² Compared with sterile gloves, nonsterile gloves are more environmentally friendly with respect to climate change, ozone layer depletion, and land use.³ The production of sterile gloves, compared with nonsterile gloves, contributes 5x more to releasing ozone-hazardous air emissions and depleting natural non–fossil fuel resources. Switching from sterile to nonsterile gloves could confer a practical, sustainable, and safe alternative to traditional sterile gloves.

Mohs surgeons estimate about a ton of waste a year,⁴ with a large portion resulting from sterile trays. During Mohs surgery, one tray (sterile or nonsterile) is often opened for the initial layer and the patient will subsequently be placed in the waiting room while the pathology is processed. After this, the patient returns to the procedure room, where an additional tray (sterile) will be opened (in single-use clinical environments) for the closure. Practices may cover the respective patient's tray with a sterile cover to prevent opening of a second sterile tray. Alternatively, keeping patients in the procedure room while waiting for the pathology would allow fewer trays being opened, thus saving waste. However, this practice is contingent on total available rooms and daily surgeon case load.

These clinics can take steps to limit their environmental effects through office supply use. Regarding minimizing surgical waste, clinics can avoid single-use surgical tools and devices. Light-emitting diode (LED) lighting also allows for a cost-friendly and environmentally friendly option, because LED lighting is nontoxic to the environment and requires less energy than a standard lightbulb.⁵ Offices may also use solar panels to cut down energy costs.

There is a plethora of opportunity to make practices more sustainable while simultaneously improving cost-effectiveness. Through use of hyfrecators, conversion to nonsterile, clean gloves, or modification of office spaces, Mohs surgeons may do their part to contribute to a more sustainable society.

References

- 1. Leonard N, McLean-Mandell R. A step toward environmental sustainability in Mohs surgery. *Dermatol Surg* 2021;47:1504–5.
- Xia Y, Cho S, Greenway HT, Zelac DE, et al. Infection rates of wound repairs during Mohs micrographic surgery using sterile versus nonsterile gloves: a prospective randomized pilot study. *Dermatol Surg* 2011;37:651–6.

- Jamal H, Lyne A, Ashley P, Duane B. Non-sterile examination gloves and sterile surgical gloves: which are more sustainable? J Hosp Infect 2021;118:87–95.
- Li A, Yoo SS. Environmental impact of Mohs micrographic sugery: a single center study. In: American College of Mohs Surgeons. Online; 2021:20–21.
- Benmamas L, Bouzidi Y, Houset G, et al. Selective separation of plastic LED lamp components using electrodynamic fragmentation for material recovery. Waste Manag 2022;144:210–20.

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Characteristics of Physicians Obtaining Micrographic Dermatologic Surgery Board Certification in 2021

n October 2021, subspecialty board certification in micrographic dermatologic surgery (MDS) was offered for the first time, with 95.1% of examinees passing and gaining certification.¹ This introduction came after years of consideration and debate by the dermatology community. We aimed to describe the characteristics and practice features of the first cohort of physicians obtaining MDS certification.

Methods

We reviewed the publicly available list of recently certified MDS diplomates from the American Board of dermatology.¹ Additional resources, including the 2021 Medicare National Downloadable File, 2018 Medicare Provider Utilization and Payment Data, American College of Mohs Surgery (ACMS) membership and fellow-in-training directory, and professional/academic websites were referenced to characterize these MDS-certified physicians.^{2–4} For comparative purposes, we also characterized dermatologists who perform Mohs micrographic surgery (MMS) on Medicare beneficiaries *or* completed an MMS fellowship but did *not* obtain MDS certification.

Results

We identified 1,675 physicians on the MDS diplomat list who were actively practicing in the United States. Among these, 1,139 (68%) were ACMS members and possessed MMS fellowship training. Compared with those without MDS certification, those obtaining certification had fewer mean years since medical school (17.3 vs 26.3), were more frequently members of academic medical centers (17.0% vs 5.4%), practiced in counties with a higher density of dermatologists (7.30 vs 6.24) and ACMS members (1.32 vs 0.79) per 100,000 population, and had a higher mean annual Medicare MMS case volume (423 vs 291) (Table 1).

Discussion

Mohs surgeons who did *not* pursue MDS certification more often practiced in rural counties with a lower density of dermatologists and ACMS members and were older. Although the exact motivations for these differences cannot be identified from these data, it is possible that the shorter practice horizon and lack of immediate effects on their practice may have caused some Mohs surgeons, including older and solo practitioners, not to pursue certification in the first offering. Targeted educational resources may help to encourage MDS certification and elevate MMS expertise among those individuals who may less regularly perform MMS or are further away from up-to-date knowledge.

The data suggest that more than half (71.4%) of ACMS members obtained MDS certification, yet a significant proportion (40.1%) of non-ACMS dermatologists performing MMS also became board-certified, potentially reflecting the degree of clinical expertise that some Mohs surgeons gain outside of formal fellowship training. Given concerns for differential levels of training,⁵ MDS certification may help dermatologists who engage in MMS to demonstrate competence, expertise, and meet a set standard regardless of