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Report

Challenges and Potential Solutions for Recruitment and Retention of Hematopoietic Cell Transplantation Physicians: The National Marrow Donor Program's System Capacity Initiative Physician Workforce Group Report

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A B S T R A C T

Hematopoietic cell transplantation (HCT) remains the only known curative therapy for many patients with hematologic, metabolic, and immunologic disorders. Furthermore, the use of HCT has increased with the emergence of HCT as a viable therapeutic option for older patients, those with significant comorbidities, and, with the demonstrated clinical effectiveness of alternative allogeneic donor sources, for those patients without a suitable sibling donor. The National Marrow Donor Program (NMDP) estimates that by 2020, it will facilitate 10,000 transplantations per year, double the number in 2010. To understand the needs of the HCT infrastructure to facilitate this number of transplantations, the NMDP organized the System Capacity Initiative 2020, centered on 6 working groups representing a diverse group of stakeholders. The Physician Workforce Group was tasked with addressing issues relating to recruitment and retention of transplantation physicians. We report here the results of our efforts and future initiatives.

INTRODUCTION

The National Marrow Donor Program (NMDP) estimates that by 2020, it will facilitate 10,000 transplantations per year, double the number in 2010, because of the steadily increasing utilization of hematopoietic cell transplantation (HCT) for therapy of patients with hematologic, metabolic, and immunologic disorders. In 2009, Gajewski et al. estimated that 2226 adult and pediatric transplantation physicians will be needed by 2020. Taking into account the projected physician growth and retirement rates, this represents a shortage of 1358 new transplantation physicians (1264 adult and 94 pediatric transplantation physicians) [1]. In addition to the projected shortage of transplantation physicians, Schriber et al. noted that there will also be challenges across the entire transplantation infrastructure [2]. To begin to address these challenges, in 2009 the NMDP organized a national collaborative effort, the System Capacity Initiative 2020, centered on 6 working groups representing a diverse group of stakeholders. The Physician Workforce Group (PWG) was tasked with identifying barriers and potential solutions to recruitment and retention of transplant physicians. We report here the results of our efforts and future plans for addressing the physician shortage.

DEFINING ISSUES AND PROBLEMS

Transplantation Physician Demographics and Career Satisfaction

The PWG believed a better understanding of the demographics and career satisfaction among transplantation physicians would guide its work. Partnering with the American Society for Blood and Marrow Transplantation (ASBMT), the PWG sent a workforce survey to all ASBMT physician members in the United States (n = 1088) in July

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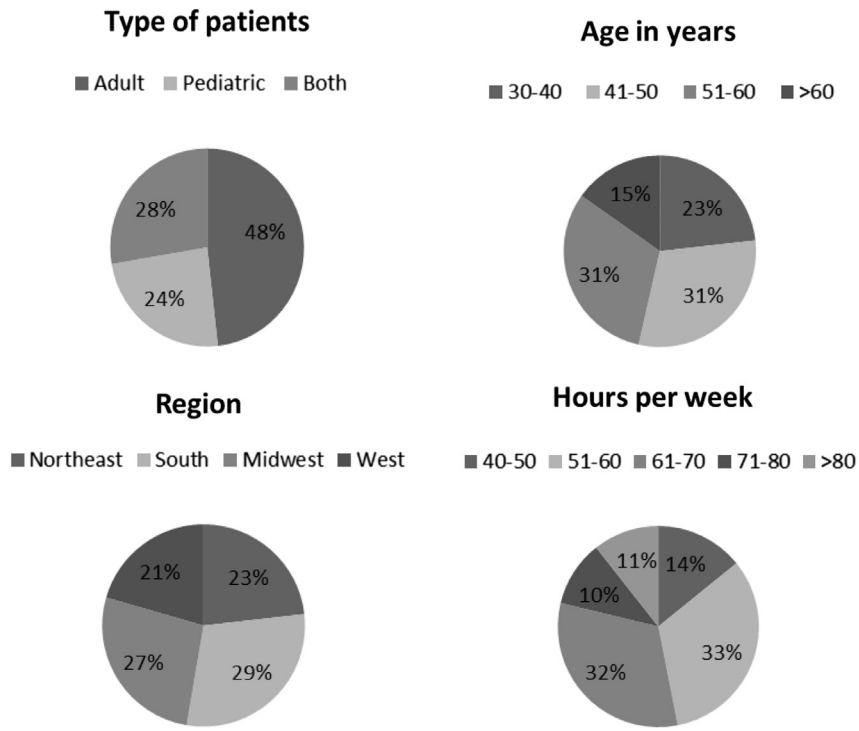

Figure 1. Transplantation physician demographics.

2010. Although only a total of 112 (10%) transplantation physicians responded, valuable information was gained. Demographics are shown in Figure 1. Approximately one half of the physicians cared for adult patients; 75% of the respondents were male. All respondents were 30 years of age or older, with nearly 70% between the ages of 41 and 60 years of age; all had been in practice for at least 1 year, with the majority (59%) in practice for more than 15 years. Respondents were evenly distributed among regions of the United States, with 87% practicing in university-associated transplantation centers. The average number of hours worked per week ranged from 40 to more than 80, with 87% working more than 50 hours.

When asked about satisfaction with salary, 45% were satisfied/very satisfied and 51% were dissatisfied/very dissatisfied. However, 80% replied that they were satisfied/very satisfied with their career as a transplantation physician, with the most satisfying aspects being the intellectual stimulation derived from patient care and research and the emotional gratification of patient care. Less than 10% of respondents were dissatisfied/very dissatisfied with their careers, with the least satisfying aspects including excessive hours, insufficient salary, and the emotional drain of caring for transplant recipients. In terms of how respondents would prefer to spend their time, 48 (43%) preferred less time in direct patient care. Ninety-five (85%) of the respondents desired more time for research, 46 (41%) desired more time for teaching/mentoring, and 73 (65%) felt they had too little time spent with trainees/junior faculty in teaching/mentoring. In assessing retention of transplantation physicians, 79 (71%) respondents expected to remain at their institution for the next 3 years, 13 (12%) to move to a different institution but remain in transplantation, 9 (8%) to leave for a nontransplantation position, 10 (9%) to retire, and 1 to leave medicine entirely for a different career.

To facilitate an understanding of the present transplantation physician workforce and recruitment efforts, questions were added based on the PWG recommendations to a national transplantation center survey that was administered by the Center for International Blood and Marrow Transplant Research in 2012 (personal communication with Navneet Majhail). Of the 188 centers surveyed, 152 responded (81% response rate; respondents included 85 adult programs, 54 pediatric programs, and 13 combined adult-pediatric programs). Responding transplantation centers reported a total of 1092 transplantation physicians who provided clinical care for HCT recipients (regardless of an individual physician's clinical effort dedicated to transplantation). These included 633 physicians among the 85 adult programs and 308 physicians among the 54 pediatric programs. Seventy-six centers reported a new physician hire within the preceding 12 months for the clinical care of transplant recipients (43 of 85 adult programs and 27 of 54 pediatric programs). Among these, 61 centers had hired at least 1 or more physicians who were within 3 years of completing their subspecialty training in hematology-oncology and/or transplantation. Eighty percent (68) of adult and 82% (44) of pediatric centers were affiliated with a hematology-oncology fellowship program. The amount of time fellows spent in the inpatient transplantation unit varied with approximately one half of both adult and pediatric centers reporting that the duration of transplantation rotations on average was 1 to 2 months and the other half reporting 3 or more months. Nineteen adult and 10 pediatric centers reported existence of a blood and marrow transplantation (BMT) fellowship program, although 6 adult and 2 pediatric centers had no fellows in their program in the preceding 12 months.

Medical Directors' Focus Group

A focus group of HCT medical directors was held in February 2011 during the Tandem Meetings in Honolulu, Hawaii. The objective was to obtain the directors'