2019 Clinical Immunology Society Compensation Survey

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To the Editor

Clinical immunology represents a rapidly growing field spanning multiple subspecialties, including allergy and immunology, hematology and oncology, rheumatology, gastroenterology, pulmonary, neurology, dermatology, otolaryngology, and many others. With the recent rise in availability of monoclonal antibodies targeting immune system pathways involved in a broad spectrum of diseases, as well as increased access to and affordability of genetic testing, there is a growing need for physicians who have advanced training and expertise in immunology and molecular genetics. Clinical immunologists possess this specific skill set, and as such, represent a critical part of clinical and research teams caring for patients with a broad range of diagnoses.

While there are many physician compensation models used in practice, there has been a recent trend toward productivity-based models. Using the commonly applied work relative value unit (wRVU)-based physician compensation model, assigning a fair monetary value to the non-procedural, medically complex services that a clinical immunologist provides is challenging. Although compensation survey data are available for allergists and immunologists as a whole from the Medical Group Management Association (MGMA), the American Association of Medical Colleges (AAMC), the Association of Administrators in Academic Pediatrics (AAAP), and Medscape, as well as other sources, clinical

immunologists represent a subspecialty within allergy and immunology with unique practice patterns. Much of this disparity centers around the medical complexity of patients, resulting in higher level evaluation and management (E&M) coding but on fewer patients, as well as the lack of related procedural-based billing. There is also a large portion of unreimbursed non-face-to-face time spent on review of medical records, coordination of care, and paperwork related to insurance approval for expensive and oftentimes, off-label diagnostic testing and treatment. Unfortunately, much of this clinical work is undervalued in the wRVU system but an invaluable part of providing comprehensive care for patients. Therefore, to provide clinical immunologists with a guide for informed salary discussions, in 2019 the Clinical Immunology Society (CIS) surveyed its membership to capture compensation data from members working in a variety of practice settings.

Methods

The survey was a self-administered, web-based online survey hosted on a secure website, with voluntary participation by members of the CIS from February to April, 2019. A total of 77 respondents from the USA completed the survey. Median salary per half-day clinic session was calculated by the product of total salary and the time percentage dedicated to clinical effort, divided by number of half-day clinic sessions per week.

Results

Demographic data are presented in Table 1. Among the 77 survey respondents, 99% worked full-time and 60% were female. Four percent of respondents held a PhD, 14% held both a MD and PhD, and 82% held a MD or DO +/- a Master's degree. While data were collected from all regions of the USA, the highest participation was from the Midwest and Northeast regions (27% and 30%, respectively). 58% of

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Table 1. Salaries listed in thousands of US dollars. *Descriptive statistics could not be calculated for professor due to only having one respondent at this rank

Salary by practice setting							
	<i>Private practice (n = 11)</i>		<i>Academic clinician (n = 46)</i>		<i>Academic investigator (n = 21)</i>		
10th percentile	121		130		98.4		
25th percentile	200		150		128.5		
50th percentile	210		160		150		
75th percentile	300		181.3		168		
90th percentile	870		222.9		258.6		
Salary by academic rank							
	<i>Instructor (n = 5)</i>		<i>Assistant professor (n = 50)</i>		<i>Associate professor (n = 9)</i>	<i>*Professor (n = 1)</i>	
10th percentile	125		130		150		
25th percentile	126		149.75		176.5		
50th percentile	130		160		190		280
75th percentile	142.5		172		205.6		
90th percentile	150		204.5		250		
Salary per clinic session							
	<i>Private practice (n = 11)</i>		<i>Academic clinician (n = 46)</i>		<i>Academic investigator (n = 17)</i>		
10th percentile	10.1		14.4		10.5		
25th percentile	17.5		17.4		16.9		
50th percentile	23.8		20.5		24.0		
75th percentile	29.5		27.3		33.1		
90th percentile	108.2		40.6		35.0		
Salary by years of experience post-fellowship (all respondents)							
	<i>0–3 years (n = 38)</i>		<i>4–7 years (n = 33)</i>		<i>8+ years (n = 19)</i>		
10th percentile	122.3		130		150		
25th percentile	130		147.5		173		
50th percentile	153.7		160		185		
75th percentile	200		175		211.3		
90th percentile	300		230		350		
Salary by years of experience post-fellowship (academic clinicians and investigators only)							
	<i>0–3 years (n = 27)</i>		<i>4–7 years (n = 27)</i>		<i>8+ years (n = 12)</i>		
10th percentile	125		124		155.4		
25th percentile	135		144.9		174.8		
50th percentile	152.3		155		187.5		
75th percentile	171		168		208.4		
90th percentile	224		198		271		
Salary by geographic region							
	<i>Midwest (n = 21)</i>	<i>Northeast (n = 22)</i>	<i>Northwest (n = 3)</i>	<i>South (n = 7)</i>	<i>Southeast (n = 10)</i>	<i>Southwest (n = 6)</i>	<i>West (n = 7)</i>
10th percentile	129	127.9	152.3	75	55.6	120	130
25th percentile	152.4	147.5	152.3	98	109	141	149
50th percentile	170	160	170	130	162.5	200	155
75th percentile	219	175	200	155	181.3	267.5	190
90th percentile	340	250	200	160	198.5	320	205

respondents identified themselves as academic clinicians, 27% as academic investigators, and 14% worked in private practice. The majority of academic respondents were employed solely by the Department of Pediatrics (80%), whereas 14% were in the Department of Medicine, 5% had

dual appointments to both Medicine and Pediatrics, and 2% were in the Department of Pathology/Laboratory Medicine. Most respondents were housed within the Division of Allergy and Immunology, but a wide range of divisions were reported, including hematology/oncology, rheumatology,

pulmonary, infectious disease, and pathology/laboratory medicine. Nine percent of those surveyed holding academic positions were instructors, 74% were assistant professors, 11% associate professors, 1% professors, and 5% held other positions (e.g., fellow or postdoc). Nearly half of the participants (44%) completed fellowship 3 years ago or less, while 38% completed fellowship 4–7 years ago, and 18% had 8 or more years of experience post-fellowship.

Full-time clinical immunologists in private practice reported the highest income, with a median annual salary of \$210,000 (Table 1). The median salary for academic clinicians and investigators was \$160,000 and \$150,000, respectively. Academic rank median annual salaries were as follows: \$130,000 for instructors, \$160,000 for assistant professors, \$190,000 for associate professors, and \$280,000 for professor. Respondents on average work 5 half-day clinics a week, with a range of 0–10 half-day clinics reported. The median percentage of time spent in clinic was 60%, in research 20%, in teaching 5%, and in administrative duties 10%. The median salary per half-day clinic session was \$23,800 for private practice, \$20,500 for academic clinicians, and \$24,000 for academic investigators. Regionally, the Southwest had the highest reported median annual income (\$200,000), whereas the South had the lowest (\$130,000). The median annual salary for an immunologist 3 years or less from fellowship was \$153,700 whereas 4–7 years out made on average \$160,000, and those 8+ years out of fellowship made a median salary of \$185,000. Nearly half (51%) of respondents reported their salary was tied to wRVU productivity measures, while only 36% reported their promotion or job performance was measured by wRVU.

Discussion

In a climate where medical school debt is very high (the AAMC reports the average medical student loan debt at graduation was \$196,520 in 2018) [1], compensation is an important factor fellows-in-training and early career immunologists use in deciding upon their first or next career position. These comparative salary data are also important to consider when exploring opportunities and negotiating contracts. According to the Medscape's 2019 Allergist Compensation Report, the average income for an allergist/immunologist was \$275,000, up from \$272,000 in 2018 but still below average for physician specialties [2]. With a median annual salary of \$160,000 for academic clinicians, clinical immunologists are paid well below average within the specialty. While the value of a skilled clinical immunologist may be clear to patients, their

families, and the other subspecialists with whom immunologists work closely to care for medically complex patients, it may be less clear to business managers closely tracking wRVU. Furthermore, while patients' medications, infusions, imaging, laboratory testing, and procedures (e.g., endoscopies, biopsies) and even hematopoietic stem cell transplantations bring in a significant source of downstream revenue to healthcare systems, the associated wRVU are typically not attributed to the clinical immunologist. Particularly in the field of clinical immunology, perhaps we should advocate for a greater focus on quality measure benchmarks, patient satisfaction, and improved clinical outcomes rather than wRVU-based productivity benchmarks.

The goal of this salary survey was to provide clinical immunologists with valuable information as they maneuver in the workforce. This analysis includes both academic and private practice immunologists and takes a closer look at compensation of academicians engaged primarily in research vs. clinical roles. There are noted limitations to this study. Clinical immunology is not a separate board certification and relies on physician self-identification as a "clinical immunologist." In academic settings, compensation may vary depending on the primarily appointed department and/or division, boarded subspecialty, faculty rank, faculty track, and percentage of clinical effort (versus teaching, research, and administrative time). While we recognize these limitations and that each institution has various metrics and compensation models, to our knowledge, this is the most comprehensive evaluation of salary data from clinical immunologists to date.

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