

ORIGINAL ARTICLE

Promotion of Academic Hospitalists: Room for ImprovementCarrie Herzke¹, Amanda Bertram¹, Ariella Stein¹, Hsin-Chieh Yeh¹, and Joseph Cofrancesco, Jr.¹¹Department of Medicine, Johns Hopkins University

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Received: 30/7/2021 Revised: 11/5/2021 Accepted: 11/22/2021 Published: 12/31/2021

Am j Hosp Med 2021 Dec;5(4):2021. DOI: <https://doi.org/10.24150/ajhm/2021.016>

Introduction: Academic hospitalist medicine has grown rapidly and often focuses on clinical rather than academic productivity. Hospitalist faculty may face challenges achieving academic promotion.

Materials and Methods: Academic hospitalist program leaders at hospitals associated with American Association of Medical Colleges (AAMC) were surveyed. Domains included leader, faculty, and program characteristics as well as promotion and faculty development.

Results: 146 programs were identified, 11 were excluded; 78 responded (58%) reporting on 3294 faculty. *Faculty:* Most identified hospital medicine as a career. *Promotion:* 21% of institutions reported a single promotion track. Among institutions with multiple tracks (79%) faculty were reported to be on the following tracks: educator (48%), clinical (47%), and research (3.3%). Most academic hospitalists were reported to be instructor/assistant professors (70%) and a median of 1.5% were professors. Publications were required for promotion in the majority of institutions regardless of track. 61% of programs had 10 percent protected time or less; 21% had none.

Conclusion: Academic hospitalists have to balance clinical duties, teaching, and scholarship. Despite a majority being on a promotion track and a majority needing to produce scholarship, most had little to no protected time. Compared to data from the AAMC, Academic Hospitalists were at lower rank than Department of Medicine peers. Academic hospitalist leaders reported barriers to promotion including lack of expertise and mentorship (74%) and/or insufficient time for research (58%). Taken together, this may limit the ability of academic hospitalists to achieve academic promotion.

Keywords: Faculty development, academic hospitalists, promotion, Clinician Educators, scholarship

INTRODUCTION

Academic hospital medicine (AHM) has been recognized for over 20 years and is experiencing tremendous growth. AHM is

defined as faculty physicians working in academic medical centers with inpatient care, teaching and research expectations.^{1,2} Unique within academic medicine specialties, many AHM programs formed in response to

regulatory and financial challenges, such as more restrictive duty hour and supervisory requirements for trainees.³ This resulted in an emphasis on clinical productivity amongst adult AHM groups. There are concerns that the current structure of AHM does not facilitate academic success and promotion, given this emphasis on clinical productivity coupled with the fact that many academic hospitalists (AH) identify as clinical educators (CEs), a group known to lag behind in promotion.⁴⁻⁶ While these concerns have been previously highlighted there is limited information in the current literature about the status of, and barriers to, promotion of AHM faculty.

Despite many academic institutions adopting multi-track promotion systems with variable expectations for scholarship,^{7,8} generalists and clinician-educators still tend to lag behind research faculty in academic promotion. For example, a greater proportion of general internal medicine faculty report that their protected time is spent on activities less amenable to publication with a greater proportion of subspecialists CEs generating more peer-reviewed publications.⁹ Given their often very demanding clinical responsibilities, there is a concern that AHM faculty are promoted at even lower rates than their general internal medicine counterparts.¹⁰⁻¹³

In collaboration with the Academic Committee of the Society of Hospital Medicine, we conducted a national survey of leadership of all AHM programs associated with an American Association of Medical Colleges (AAMC) affiliated medical center. The survey (available in the appendix) included a number of domains including leader, faculty, and program characteristics as well as promotion and faculty development. The purpose of this study was to focus on issues related to academic rank and academic promotion by understanding the current academic rank of AHM leaders

and faculty, expectations for scholarship, and protected time.

MATERIALS AND METHODS

Study Population

All US medical schools listed by the AAMC were selected. For each, the primary teaching hospital(s) as well as the name and contact (email, telephone and office address) for the hospitalist director or equivalent, was identified using institutional website listings and internet searches. Institutions were excluded if at least one primary teaching hospital could not be identified, the associated hospital(s) lacked a hospitalist program, or the primary teaching hospital was staffed by private, external corporations.

Survey

Domains for the survey instrument were developed using a review of the literature, discussion with experts and in collaboration with the Academic Committee of SHM. These included program and faculty information, as well as perceptions about promotion and faculty development. The survey respondents were the AHM leader or their designee, with one respondent per primary teaching hospital. The development of the survey has been described previously.² The survey instrument is available in the appendix. This project was approved by the Johns Hopkins IRB.

Statistical Analysis

Participants and institutional characteristics were first examined using descriptive statistics including percent frequencies, means (standard deviations) and median (interquartile ranges). Institutional characteristics, including NIH funding quartile, type of institution (public/private), geographic region, and institutions' year established (more or less than 10 years), between respondents and non-respondents

were compared using chi-square test. The primary outcome in this analysis was the percent of faculty who were Associate or Full Professors. Due to the skewed nature of the data and the distribution of the values being bounded by 0 and 1, we categorized the outcome into two groups: institutions with less than 10% and institutions with greater than or equal to 10% of faculty as Associate/Full Professors. Univariate analysis was then performed using Chi-square, Fisher's Exact, and Kruskal-Wallis tests to assess the association between each correlate and the primary outcome of whether greater than 10% of Faculty were Associate or Full Professors. Potential correlates were included in the subsequent multivariable regression model based on having a p-value of less than or equal to 0.2 in the univariate analysis. All analyses were performed using SAS 9.4.

RESULTS

Response rates:

146 AAMC programs were identified. Eleven were excluded due to: lack of a primary teaching hospital⁶, absence of a hospitalist program¹, or employment of hospitalists through a staffing company⁴. 80 of 135 surveys (59%) were returned. Combined, these 80 respondents report overseeing approximately 3300 faculty across their institutions in a typical year. This is believed to represent nearly 50% of the estimated 7000 academic hospitalists.¹⁴ There were no significant institutional differences between responders and non-responders regarding quartile of NIH funding ($p=0.12$), type of institution (public/private; $p=0.09$), geographic region (0.15), or institutions' year established (more or less than 10 years; $p=0.86$).

Leader and Program Characteristics:

Table 1 describes the general characteristics of the hospitalist leaders who responded and their hospitalist programs. On average, AH programs spend 54% of their clinical time on teaching services at the main teaching hospital. Additionally, 46% of programs also cover community hospitals during which they have teaching responsibility approximately half (49%) of the time. 55% of AHM groups are their own division/department while 45% are part of another division. A full time equivalent (FTE) was defined as an average of 59.5 hours per clinical week (range 25-84), 30.6 weeks per year (range 23-48), 2014 hours per year (728-2400), or 188 shifts per year (range 170-216).

Faculty Characteristics:

Most AHM programs report that their faculty have identified hospital medicine as a career, with 64% of programs reporting more than 75% of their faculty plan to remain a minimum of 3 years. Twenty one percent of programs reported being at an institution with a single-track promotion system. The remainder were at institutions with multiple tracks, with on average forty-eight percent on Clinician-Educator/Educator tracks, 47% on a clinical track, 3% on a research track and 0.7% on a QI track. The majority of AH faculty were reported to be instructors and assistant professors with few associate professors or professors, with no difference between single and multitrack institutions (Table 2). Only 3% of AH were reported to be clinical associates or clinical staff, 1% did not have academic appointments.

Promotion:

Of the respondents who oversee more than 1 site, the majority of programs (78%) have the same promotion criteria regardless of practice site. Publications were identified as either essential or very important for promotion in 69% of programs with a single

Respondents	N=80
Role	No. (%)
Director of Hospitalist Program	66 (84)
Other	13 (16)
Years at current role Median (IQR)	4 (2-7)
Academic rank of Respondent	No. (%)
Assistant professor	28 (35)
Associate professor	26 (33)
Professor	1 (1)
Other	1 (1)
No academic affiliation	24 (30)
Organization of each hospitalist group:	No. (%)
Its own department	3 (4)
Its own division within the Department of Medicine	39 (49)
Part of the division of GIM	36 (45)
Other	2 (3)
Type of hospitalist units the group staffs	No.
Primary teaching hospital of your School of Medicine	71
Other affiliated tertiary care hospital of your School of Medicine	15
Community hospital with teaching responsibilities	17
Community hospital without teaching responsibilities	18
Non-acute facility	3
Outpatient clinic	14
Other	11
Missing	1
How many hospitals that you oversee do you consider a “primary teaching hospital of School of Medicine?”	No. (%)
One	57 (73)
More than one	21 (27)
In a typical year, how many hospitalist physicians are in your group (regardless of their clinical role)? (median, inter-quartile range)	35 (18-52)

Table 1: Hospitalist Program Characteristics

promotion track. In programs with multiple tracks, publications were identified as either essential or very important for promotion 100%, 78%, and 49% of the time for research, clinical educator, and clinical tracks respectively. In univariate analysis, programs with multiple tracks which identified that publications as either essential or very important for the clinical pathway, were less likely to have the highest number of faculty at the associate or professor ranks.

Protected time was generally limited, with 61% of programs protecting 10% or less of hospitalists' time and 21% providing no protected time. In univariate analysis, there were no significant predictors of having more than 10% protected time, including characteristics of the leader (years in position and academic rank), characteristics of the program (part of GIM vs a separate division/department, number of faculty, number and types of hospitals covered, time with learners), characteristics of faculty (percentage of female faculty, academic rank of faculty) or characteristics of the academic structure (percentage of faculty on a tenure track, presence of single versus multiple promotion tracks or the importance of publications for promotion).

For programs reporting having higher numbers of faculty (>10%) at the Associate or Full Professor level, the following were

significant predictors in univariate analysis: rank of the leader (Full or Associate Professor) and greater time with learners. If the leader was at the Professor or Associate Professor level the odds of >10% of their faculty being Associate/Professors were 4.42 times (95% CI: 1.17 – 16.72) than that of a program where the leader was an Instructor/Assistant Professor. For every 10% increase of time spent with learners, the odds of >10% of faculty being at the Associate/Professor rank were 1.3 times more likely. There was no significant difference of academic rank for those programs who are a part of the Division of General Internal Medicine versus those programs that are their own division or department. Barriers to Promotion: 74% of respondents rated lack of expertise and mentoring in research and scholarship as a moderate or major barrier to promotion. Leaders also ranked the following as moderate or major barriers to promotion at their institution: (1) lack of time to pursue activities required for promotion, 58% of respondents, (2) promotion requirements which were not aligned with hospitalist activities, 53% of respondents and (3) promotion not perceived to be a priority for hospitalists, 46%, of respondents.

	Total (N=78) Median (IQR)	Multi track (N= 60) Median (IQR)	Single track (N= 16) Median (SD)	P-Value (Kruskal-Wallis)
Professor	1.5 (0-5)	1 (0-5)	5 (0-5)	.3758
Associate Professor	10 (5-20)	10 (5-20)	10 (4-20)	.9590
Assistant Professor	60 (40-81)	60 (40-82)	61 (50 – 81.5)	.7542
Instructors	10 (0-25)	10 (0-25)	10 (0-27.5)	.8159
Clinical Associate	0 (0-0)	0 (0-0)	0 (0-5)	.0059
No appointment	0 (0-0)	0 (0-0)	0 (0-0)	.2920

Table 2: Academic Rank of Academic Hospitalist Faculty

**columns do not add up to 100% given the use of medians secondary to skewed data*

DISCUSSION

AHM is a relatively new field, with emphasis on clinical productivity and their faculty seem to have significant issue with academic promotion. There are some striking differences comparing AH to Departments of Medicine faculty rank as reported by the AAMC¹⁵ for Departments of Medicine (Table 3): Instructor/Assistant (median of 70%, mean of 76% of Academic Hospitalist vs mean of 57% of faculty within Departments of Medicine), Associate Professors (median of 10%, mean of 13% of Academic Hospitalists versus mean of 20%) and Professor (median of 1.5%, mean of 3.5% versus a mean 21%). One explanation is that AHM, by comparison to most medicine subspecialties, is relatively new field and it may take time to “catch up”. However, AH medicine has been recognized for more than 20 years, suggesting that lower rank is not explained solely by faculty being more junior and having fewer years at rank.¹⁶

It has been reported that AHM faculty face unique challenges toward achieving academic promotion.^{7,10,11,17,18} Prior studies have highlighted the promotion challenges of Clinician-Educators in general⁴⁻⁶, and AHM specifically^{7,10,11,17,18}. This study offers further insight related to reported ranks of AHM faculty, program and leader characteristics, as well as leaders' perceptions of barriers to promotion for AHM faculty.

Regardless of the promotion track, our study found that the majority of AH faculty are expected to publish to achieve academic promotion, but the majority have little or no protected time and lack adequate mentorship given the paucity of Associate and full Professors within academic hospital medicine. It is therefore perhaps not surprising that AHM leaders ranked lack of time to pursue activities required for promotion as well as lack of expertise and

mentoring in research and scholarship as significant barriers to promotion.¹¹

These data also suggest that having multiple promotion tracks may not be sufficient to correct the situation. Others studies have highlighted promotion challenges amongst clinically active faculty across fields and suggest that significant challenges balancing heavy clinical loads with a need to produce scholarship persist.^{8, 11,19} Our study found that fewer faculty on the clinical track were promoted to Associate/Professor at institutions where publications were important for promotion. Finally, while more time with learners was associated with higher rates of faculty at the Associate/Professor level, the growth of faculty and beds covered by hospitalists without learners in many academic centers means many AH faculty have less time with learners, presenting further challenges to promotion.²⁰

In addition to time with learners the rank of the leaders was associated with promotion of academic hospitalist faculty. This is an interesting finding and may suggest that in programs where the leader is an Associate or Professor there are more resources or structural advantages (e.g. promotion pathways favorable to clinician educators) to promote academic promotion. Alternatively, this may reflect the benefit of access to mentorship from a leader who has the skillset needed to gain academic promotion. Our study has several limitations. Though comparable to other surveys of faculty, our response rate was only 58%. Given similarities between responding institutions versus non-responders, we believe that our survey reflects opinions of a broad range of AHM programs in the United States and reflects the perceptions of AHM leaders. It is possible that individual faculty responses, especially around barriers to promotion, may be different from faculty leaders and we did not survey faculty.

However, we believe leadership would have correct information about their faculty's gender and academic rank, and their program's protected time, and likely can offer important insights onto systemic issues impacting promotion of their faculty. Additional limitations include that our survey design did not include time at rank information for leaders or individual faculty. The 21% of programs reporting a single portion tack seems high and perhaps respondents misread the question or considered the clinical track to be a single track. Nonetheless, we report the data as received. We report notable associations but do not claim causality.

Taken together, and as financial pressures academic medical centers continue to increase, balancing the need of clinical

service duties with ensuring the academic success of academic hospitalist faculty is likely to remain challenging. Failure of AHM faculty to achieve similar proportion of academic rank compared with Department of Internal Medicine peers should raise concern. These issues need to be addressed to ensure AHM remains a vibrant and successful field. Organizations, such as the Society for Hospital Medicine and the Society for General Internal Medicine, may offer resources and source of mentorship, such as through programs including the Academic Hospitalist Academy.²¹ Future studies are needed to test which type of interventions and program restructuring might better meet the needs of all constituents to advance the field of academic hospital medicine and its faculty.

	All Faculty (mean)	All Basic Science Faculty (mean)	All Clinical Faculty (mean)	All Internal Medicine Faculty (mean)	Academic Hospitalists (mean/median)
Instructor, %	9.03	4.80	9.54	10.12	17.87/10
Assistant Professor, %	46.27	31.57	48.18	46.97	58.22/60
Associate Professor, %	20.16	23.17	19.77	19.62	13.14/10
Professor, %	21.66	35.96	19.89	20.57	3.52/1.5
Other, %	2.88	4.50	2.61	2.72	3.99*

Table 3: U.S. Medical School Faculty by Rank and Department compared to our survey data

*Includes Clinical Associates and No Appointment

NOTE: Percentage provided is the mean percentage of the data provided by program leaders. As such, they do not add to 100%.

<https://www.aamc.org/data-reports/faculty-institutions/interactive-data/2019-us-medical-school-faculty>

Notes

Contributors: The authors would like to acknowledge the Johns Hopkins General Internal Medicine Clinician-Educators Mentoring and Scholarship Program and the Johns Hopkins General Internal Medicine Methods Core for their support.

Potential conflicts of interest: The author reports no conflicts of interest in this work.

Funding: None

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