physical examination, and clinical course remain the principal components of differential diagnosis complemented by additional laboratory testing.

References

- 1. Tissot-Dupont H, Torres S, Nezri M, Raoult D. Hyperendemic focus of Q fever related to sheep and wind. Am J Epidemiol 1999;150:67–74.
- 2. Tissot-Dupont H, Amadei MA, Nezri M, Raoult D. Wind in November, Q fever in December. Emerg Infect Dis 2004;10:1264–9.
- 3. O'Connor BA, Tribe IG, Givney R. "A windy day in a sheep saleyard: an outbreak of Q fever in rural South Australia." Epidemiol Infect. 2014 May 9:1-8. [Epub ahead of print].
- 4. Franco MP, Mulder M, Gilman RH, Smits HL. Human brucellosis. Lancet Infect Dis. Dec 2007;7(12):775-86.
- 5. Marty AM, Dumler JS, Imes G, Brusman HP, Smrkovski LL, Frisman DM (August 1995). "Ehrlichiosis mimicking thrombotic thrombocytopenic purpura. Case report and pathological correlation". Hum. Pathol. 26 (8): 920–5.
- 6. McBride, Jere W.; Walker, David H. (31 January 2011). "Molecular and cellular pathobiology of Ehrlichia infection: targets for new therapeutics and immunomodulation strategies". Expert Reviews in Molecular Medicine 13.
- 7. Smith KA, Bradley KK, Stobierski MG, et al. Compendium of measures to control Chlamydophila psittaci (formerly Chlamydia psittaci) infection among humans (psittacosis) and pet birds, 2005. J Am Vet Med Assoc. Feb 15 2005;226(4):532-9.

Editorial: Impact of Academic Hospitalists on American Medical Education: A Compact Review

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Natraj Katta, MD, FACP¹

¹ Division of Hospital Medicine, Department of Medicine, University of Missouri School of Medicine, Columbia, MO

Address correspondence to Natraj Katta

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Introduction

Hospitalists are physicians whose medical practice focuses on general medical inpatient care. (1) Wachter and Goldman first used the term *Hospitalist* in 1996 to describe a new type of physician in the United States. (2) Initially, the concept of the Hospitalist was not widely accepted and faced significant resistance from many physicians. (3) However, Hospitalists now constitute a major force in the healthcare industry, providing inpatient care in both non-teaching settings as well as teaching hospitals ranging from small community hospitals to large academic centers. This article will discuss the role of academic Hospitalists in medical education in the United States.

Discussion

Traditionally, general Internal Medicine faculty has been responsible for resident physician and medical student education. However, it is becoming increasingly more common for academic Hospitalists to serve as core teaching faculty at community and university hospitals. (7) Many studies have demonstrated the benefit of using Hospitalists as teaching faculty in the domains of resident education, resident satisfaction, improved teaching, and higher quality of teaching rounds. (1, 4, 5) Similarly, medical student education has also significantly benefited from academic hospitalist faculty. (6)

One of the initial studies by Chung et al assessing the effectiveness of academic Hospitalists in medical education indicated significant satisfaction among house staff on Hospitalist teaching rounds. Highlights of that study, published in the American Journal of Medicine, are summarized below. (5)

- 336 end-of-month surveys and 201 year-end surveys were sent to the 86 residents. A 23-point questionnaire was used. Response rates were 53% and 58%, respectively. Overall, 75% of residents responded to at least one of the two surveys. Residents in each of the comparison groups did not differ with regard to year in training, age, or sex.
- In the end-of-month survey, Hospitalist service resident physicians were more satisfied than traditional service residents (59% vs. 38%, P = 0.10) on inpatient teaching rounds.
- In the year-end survey, resident physicians who experienced both the Hospitalist and traditional non-Hospitalist teaching services preferred the Hospitalist service in inpatient teaching rounds (P = 0.05).
- Resident physician preference for the Hospitalist service was evident in the educational realm, with surveyees indicating better learning experience, more educationally stimulating work, greater emphasis on education by the attending physician, and higher quality of attending rounds. When asked which service they would choose if given the opportunity, 72% of residents selected the Hospitalist service.
- Some initial concerns regarding Hospitalist services at teaching hospitals included the worries that a Hospitalist service would inappropriately limit autonomy (28%) and compromise exposure to different faculty members and teaching styles (60%). However, most resident physicians surveyed emphasized that the educational advantages of full-time attending physician presence outweighed those concerns.

In addition to resident physician education, Hospitalist teaching in academic settings has a tremendous impact on medical student education. Hunter et al reported the results of a study in

Academic Medicine describing medical student evaluation of Hospitalist versus non-Hospitalist teaching rotations. This study found that academic Hospitalist teaching rounds provided unique benefits over non-Hospitalist rotations, including expertise in inpatient medicine, accessibility of Hospitalists to students, emphasis on continuity of care, demonstration of effective communication, and representation of a realistic practice style in a managed care setting. (6) The students surveyed also emphasized that academic Hospitalists helped cultivate awareness of issues such as cost effectiveness and systems-based improvements in areas such as patient follow-up, communication with primary care physicians post-acute care, and palliative care. (6) Disadvantages mentioned by the medical students included reduced patient length-of-stay with fewer opportunities for students to follow the natural history of patients' illnesses, marginalization of the primary care physician, division of inpatient versus outpatient medicine, and decreased exposure to subspecialists, primary care physicians, and physician–scientists. (6)

More recently, Beasley et al surveyed all 386 Internal Medicine residency directors in the United States in 2005 (272 respondents) and 2007 (236 respondents) regarding attitudes towards academic Hospitalists. Results of this study, published in the Journal of Hospital Medicine, demonstrated that the majority of Internal Medicine residencies have recruited Hospitalists to provide teaching rounds, lectures, and bedside teaching in community and university hospitals. In addition, a small number of institutions have developed Hospitalist fellowship training programs to promote the position of Hospitalist as a career option for graduates. (7)

Conclusion

Since the introduction of Hospitalist services in the American health care industry in 1996, the position has grown rapidly and become a vital service in the inpatient care setting. More recently, the trend of hospitalist-run preoperative and transitions-of-care clinics has emerged across the United States. The role of the Hospitalist in the medical education is undeniably significant, suggesting that the future of medical education will include more academic Hospitalists and will take place in academic centers.

References

- 1. Pressem DM. Hospitalists in medical education: coming to an academic medical center near you. Nat'l Med Assoc. 2006 Sep; 98(9):1501-4.
- 2. Wachter RM, Goldman L. The emerging role of "hospitalists" in the American health care system. N Engl J Med. 1996; 335:514–7.
- 3. Brown RG. Hospitalist concept: another dangerous trend. Am Fam Physician. 1998;58:339–42
- 4. Hauer KE, Wachter RM, McCulloch CE, Woo GA, Auerbach AD. Effects of hospitalist attending physicians on trainee satisfaction with teaching and with internal medicine rotations. Arch Intern Med. 2004; 164:1866-71.
- 5. Chung P, Morrison J, Jin L, Levinson W. Humphrey H. Meltzer D. Resident satisfaction on an academic hospitalist service: Time to teach. Am J Med. 2002; 112: 597-601.

- 6. Hunter AJ, Desai SS, Harrison RA, Chan BK. Medical student evaluation of the quality of hospitalist and non-hospitalist teaching faculty on inpatient medicine rotations. Acad Med. 2004; 79:78-82.
- 7. Beasley BW, McBride J, McDonald FS. Hospitalist involvement in internal medicine residencies. J Hosp Med. 2009 Oct; 4(8):471-5.

Review Article: Care of the Hospitalized Patient with Cystic Fibrosis: A Summary of Current Practice Guidelines; Recommendations for the Hospitalist, Part 2

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Melissa M Kouba, MD¹

¹Division of Hospital Medicine, Department of Medicine, University of Missouri School of Medicine, Columbia, MO

Address Correspondence to: Melissa Kouba

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In a short review of our last discussion, I will remind the reader that cystic fibrosis is a complex genetic disease affecting many organs, but it is often lung disease that brings the patient to our attention. The natural history of lung disease begins with the production of abnormal mucus (a result of the gene mutations associated with this disease). We refer to a vicious cycle of disease, including early and persistent infection of the airway, concomitant inflammatory response, and, over time, progressive airway obstruction. These processes ultimately result in respiratory failure. As disease worsens there is an increased likelihood of respiratory complications. In addition, patients with cystic fibrosis often present with multiple manifestations of disease upon presentation to the hospital, complicating assessment and management. This second installment of recommendations for the hospitalist will briefly address these complications to assist in the management of these patients.

The cystic fibrosis care team often acts as the gate keeper for hospital admissions given the specialized ability to recognize a pulmonary exacerbation. However, patients may present to the emergency department with symptoms requiring urgent attention, such as massive hemoptysis or pneumothorax. The following recommendations are summarized from guidelines provided by the Cystic Fibrosis Pulmonary Therapies Committee. The CF Foundation pulmonary therapies committee consists of a multi-disciplinary group including representative physicians, nurses,