

# Attending Rounds in the Current Era

## What Is and Is Not Happening

Chad Stickrath, MD; Melissa Noble, BS; Allan Prochazka, MD; Mel Anderson, MD; Megan Griffiths, BS; Jonathan Manheim, MD; Stefan Sillau, MS; Eva Aagaard, MD

**Importance:** General medicine rounds by attending physicians provide the foundation for patient care and education in teaching hospitals. However, the detailed activities of these rounds in the current era are not well characterized.

**Objective:** To describe the characteristics of attending rounds for internal medicine inpatients in a large teaching hospital system.

**Design:** A cross-sectional observational study of attending rounds in internal medicine. Rounds were observed directly by research assistants.

**Setting:** Four teaching hospitals associated with a large public medical school.

**Participants:** Fifty-six attending physicians and 279 trainees treating 807 general medicine inpatients.

**Main Outcomes and Measures:** Duration and location of rounds, composition of teams, and frequency of 19 potential activities during rounds.

**Results:** We observed 90 days of rounds. A typical rounding day consisted of 1 attending with 3 trainees visiting

a median of 9 (range, 2-18 [SD, 2.9]) patients for a median of 2.0 hours (range, 25-241 [SD, 2.7] minutes). On rounds, teams most frequently discussed the patient care plan (96.7% of patients), reviewed diagnostic studies (90.7%), communicated with patients (73.4%), and discussed the medication list (68.8%). Teams infrequently discussed invasive lines or tubes (9.3%) or nursing notes (6.2%) and rarely communicated with nurses (12.0%) or taught physical examination skills (14.6%), evidence-based medicine topics (7.2%), or learner-identified topics (3.2%). Many commonly performed activities occurred infrequently at the bedside.

**Conclusions and Relevance:** Most activities on attending rounds do not take place at the bedside. The teams discuss patient care plans and test results most of the time but fail to include many items that may be of significant value, including specific aspects of patient care, interprofessional communication, and learner-centered education. Future studies are needed to further assess the implications of these observations.

*JAMA Intern Med.* 2013;173(12):1084-1089.

Published online May 6, 2013.

doi:10.1001/jamainternmed.2013.6041

**Author Affiliations:** Department of Medicine, University of Colorado Denver School of Medicine (Drs Stickrath, Prochazka, Anderson, Manheim, and Aagaard and Mr Sillau) and Medical Service, Denver Veterans Affairs Medical Center (Drs Stickrath, Prochazka, and Anderson), Denver, Colorado. Mss Noble and Griffiths are medical students at the University of Colorado Denver School of Medicine.

**F**OR DECADES AT TEACHING HOSPITALS, internal medicine physicians, residents, and medical students have engaged in some form of attending rounds to direct patient care, communicate with patients and families, and advance medical education. Features of these rounds may be changing; however, studies directly observing the characteristics of rounds in the current era are lacking.<sup>1,2</sup>

In the early 1900s, William Osler advocated for a model of interaction among senior physicians, trainees, and patients that resembles a form of attending rounds.<sup>3</sup> In the following decades, several observational studies<sup>4,5</sup> found these rounds to occur at the patient's bedside 75% of the time,

where the attending physician listened to the trainees present the patient's history and pertinent data, demonstrated additional historical elements or physical examination skills, modeled effective communication with patients, and discussed the theory behind the illness and care.

## See Invited Commentary at end of article

Attending rounds in US teaching hospitals have dramatically evolved in the past few decades, including a shift in the format from the bedside to conference rooms and hallways.<sup>6-8</sup> Although the Accreditation Council for Graduate Medical Education program requirements in internal

medicine state that “patient based teaching must include direct interaction between resident and attending, bedside teaching, discussion of pathophysiology, and the use of current evidence in diagnostic and therapeutic decisions . . . [and that] teaching must be formally conducted on all inpatients,” additional specific guidelines are not provided.<sup>9</sup> The structure and content of current rounds has not been well described, although some educators have expressed concern about a de-emphasis on patient communication and physical examination skills.<sup>10-12</sup> Therefore, to determine whether our current methods of patient rounds meet patient care and educational goals, we designed a prospective observational study of the characteristics of hospital rounds in a large university teaching hospital system.

## METHODS

We performed a cross-sectional descriptive study of attending rounds of general medicine inpatients at 4 teaching hospitals affiliated with a large public medical school from July 1, 2010, through March 31, 2012. The 4 hospitals included a quaternary referral university hospital, a referral Veterans Affairs (VA) hospital, a safety-net county hospital for a large urban area, and a private community-based hospital. Internal medicine teams at each hospital were supervised by university-affiliated faculty responsible for the care of all patients assigned to the team. General medical teams were observed, which included teams conducting rounds in the intensive care unit and on the general medical wards at 2 sites (the VA and community hospitals). Rounds that occurred among teams in closed intensive care units, on subspecialty services, and on medical consultation services were excluded. The admitting systems of the hospitals varied from a traditional 24-hour call every fourth day to a day-night system in which teams admit patients every day. The institutional review board of each hospital approved the study. Investigators asked attendings and their general medicine ward teams to allow observation of their attending rounds. Dates of observation at the 4 sites were randomly assigned to capture all points in the admitting cycle.

Fourth-year medical students were trained in a standard fashion to be unobtrusive, silent observers of rounds. These trained observers accompanied teams on rounds, where they recorded the participants who were present at the beginning of each patient presentation and the locations, date, and duration of rounds. We assessed the frequency and location of activities that were reported in the literature and by local experts to be common or important for rounds.<sup>2,13,14</sup> These activities fell into the following 3 domains: patient care activities, communication activities, and educational activities. Patient care activities included discussion of the patient care plan, diagnostic studies, the patient medication list, deep venous thrombosis prophylaxis, invasive lines or tubes, ancillary provider notes, and nursing notes. Communication activities included communicating with the patient, family, nursing staff, and others (eg, the pharmacy). Educational activities included addressing questions about the patient care plan, teaching of general medical topics, reviewing specific evidence-based medicine literature, teaching about a topic that was identified as a learning issue by the trainees, teaching history-taking and physical examination skills, teaching oral presentation skills, and providing feedback. In addition to direct observation, faculty completed a brief demographic survey that assessed the number of years in practice, the number of weeks attending on the general medicine wards in the past year, and faculty development that might have prepared them to teach on rounds.

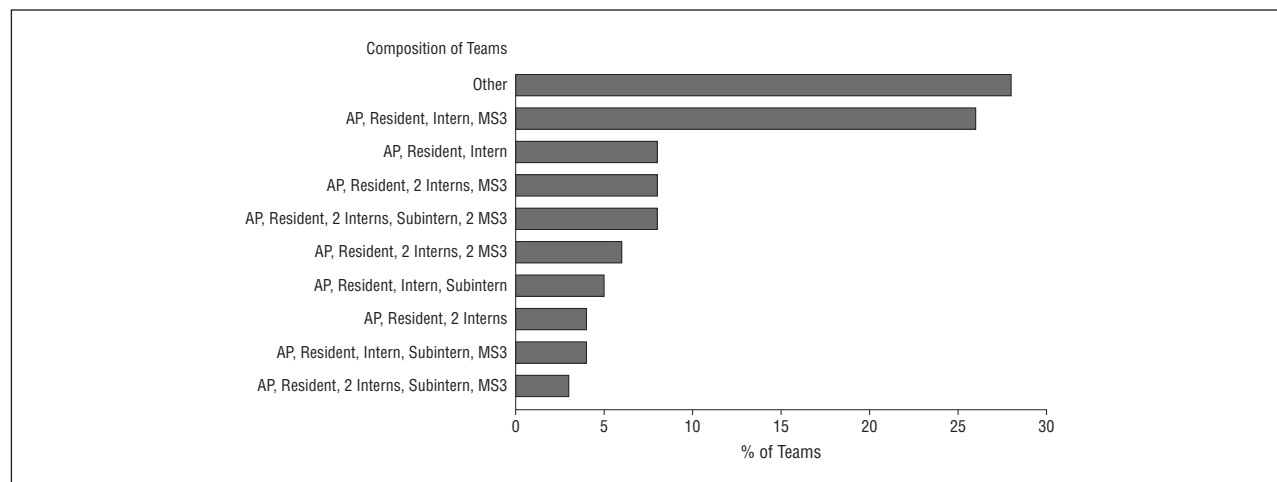
The data were de-identified and then analyzed. Basic frequency analysis was performed on the activities that were observed during rounds. Activity frequencies were compared by location (ie, bedside vs other). We used the Pearson product moment correlation coefficient to test the relationship between duration of rounds and the number patients undergoing evaluation. We used the Mann-Whitney test to assess for a relationship between rounds that occurred before or after the changes in resident duty-hour requirements of July 2011 and the duration of rounds, the number of patients discussed on rounds, and the number of trainees present on rounds. We used a Poisson distribution model to assess for a relationship between activities on rounds and the level of attending experience in leading ward rounds and attending training, which may have affected their behavior on rounds.

## RESULTS

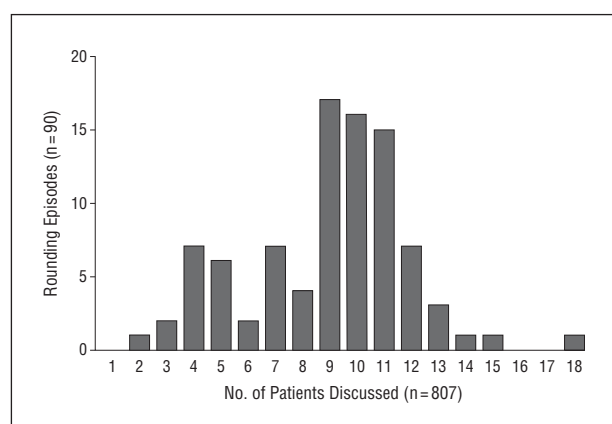
We invited the general medicine ward teams to participate each month during the study period and 90 agreed, including 35 at the county hospital, 25 at the VA hospital, 21 at the university hospital, and 9 at the community-based hospital. Sixty-six observations occurred before the July 2011 increase in resident duty-hour restrictions, and 23 observations occurred after July 1, 2011. The observations included a total of 56 attending physicians, 279 trainees, and 807 patients. Among the trainees, residents (postgraduate years 2 and 3) accounted for 20.5%; interns (postgraduate year 1), 47.4%; and medical students (years 3 and 4), 31.5%. The composition of trainees on any given team varied widely, with 27 different combinations represented among the 90 observations (**Figure 1**). The most common composition of team members consisted of an attending physician, 1 resident (postgraduate year 2 or 3), 1 intern (postgraduate year 1), and 1 third-year medical student, which accounted for 23 of 89 teams observed (26%). On 59 of 90 observation days (66%), all team members were present at the beginning of every patient presentation.

Among observed rounds, 47 days (52%) included at least 1 new patient presentation and 43 days (48%) included only follow-up patient presentations. The median number of patients discussed on a given day of rounds was 9 (range, 2-18 [SD, 2.9] patients) (**Figure 2**). Rounds lasted from 25 to 241 minutes (**Figure 3**). We observed a significant relationship between the duration of rounds and the number of patients discussed on rounds (Pearson product moment correlation,  $r=0.68$ ;  $R^2=0.47$  [ $P<.001$ ]) (**Figure 4**). The median time spent on patient presentations was 5 minutes (range, 10 seconds to 20.8 minutes [SD, 3.4 minutes]). For rounds that occurred before the July 2011 changes in resident duty-hour requirements compared with rounds that occurred after July 2011, the number of trainees present on rounds increased significantly (3.5 vs 4.0 trainees [ $P=.04$ ]), whereas no significant change occurred in the number of patients discussed (9.1 vs 8.9 patients [ $P=.60$ ]) or in the duration of rounds (122 vs 120 minutes [ $P=.81$ ]).

The most common patient care activities on rounds included discussing the patient care plan (performed for 96.7% of patients), reviewing laboratory and imaging findings (90.7%), and clarifying patient care questions



**Figure 1.** The composition of observed medicine teams on rounds with the attending physician (AP). MS3 indicates third-year medical student.



**Figure 2.** The number of patients discussed per episode of rounds. Observations occurred during 90 round episodes for a total of 807 patients.

(63.7%). The least commonly performed patient care activities were discussion of nursing notes (6.2%), discussion of invasive tubes and lines (9.3%), and deep venous thrombosis prophylaxis (16.2%). The most common communication activity on rounds was communicating with the patient (73.4%), whereas the least common was communicating with ancillary staff (6.3%). The most common educational activities included answering questions about the specific patient care (63.7%) and teaching general medical topics (45.5%). Many teaching activities were performed for less than 20% of the patients discussed on rounds, including teaching about topics that were identified by the learner (3.2%), history-taking skills (4.2%), oral presentation skills (4.7%), evidenced-based medicine (7.2%), feedback (11.0%), and physical examination skills (14.6%) (**Table 1**).

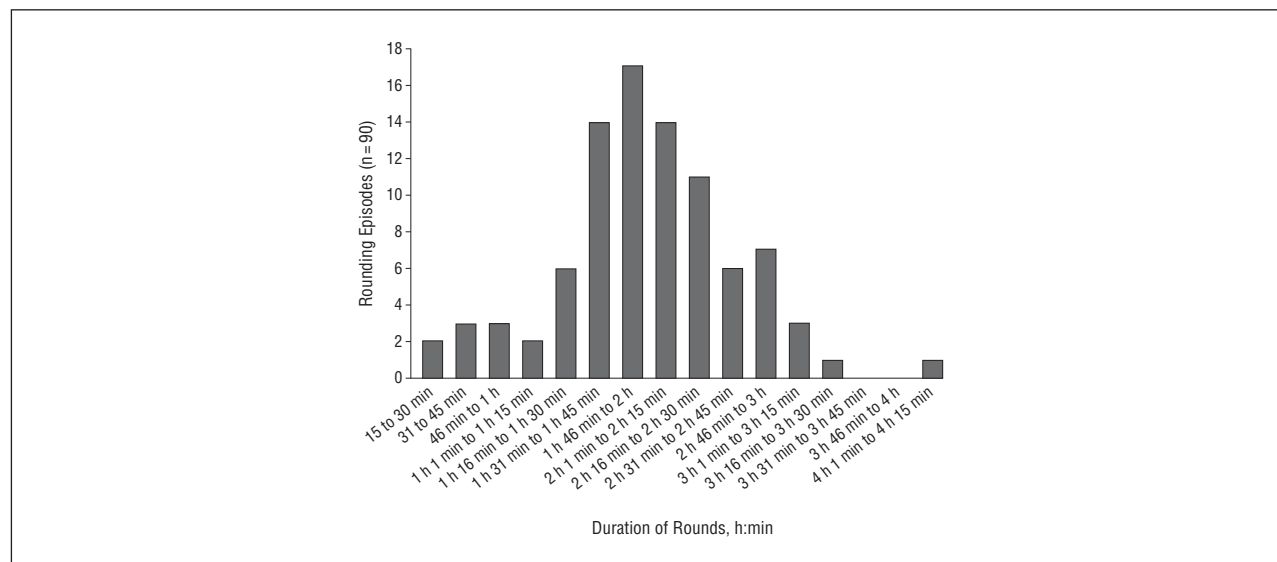
Most of the activities were more often performed away from the bedside, such as general medical topic teaching (66.2% of episodes), feedback (64.0%), and discussion of the patient care plan (59.5%), diagnostic studies (58.9%), and patient medication list (58.7%). However, some activities were performed nearly exclusively at the bedside, including most communication activities (64.9%-99.2% of episodes occurred at the bedside) and teaching of physical examination skills (98.3%) (**Table 2**).

Attendings who had received training that might have prepared them to teach on rounds discussed deep venous thrombosis prophylaxis more often (increase, 103%; rate ratio, 2.03 [95% CI, 1.11-3.72;  $P = .02$ ], communicated with other members of the hospital staff more often (181%; 2.81 [1.13-6.97;  $P = .01$ ]), and provided feedback more often (168%; 2.68 [0.98-7.34;  $P = .04$ ]). The total number of years attending and the number of weeks attending the wards in a typical year did not have significant effect on observed behaviors during rounds.

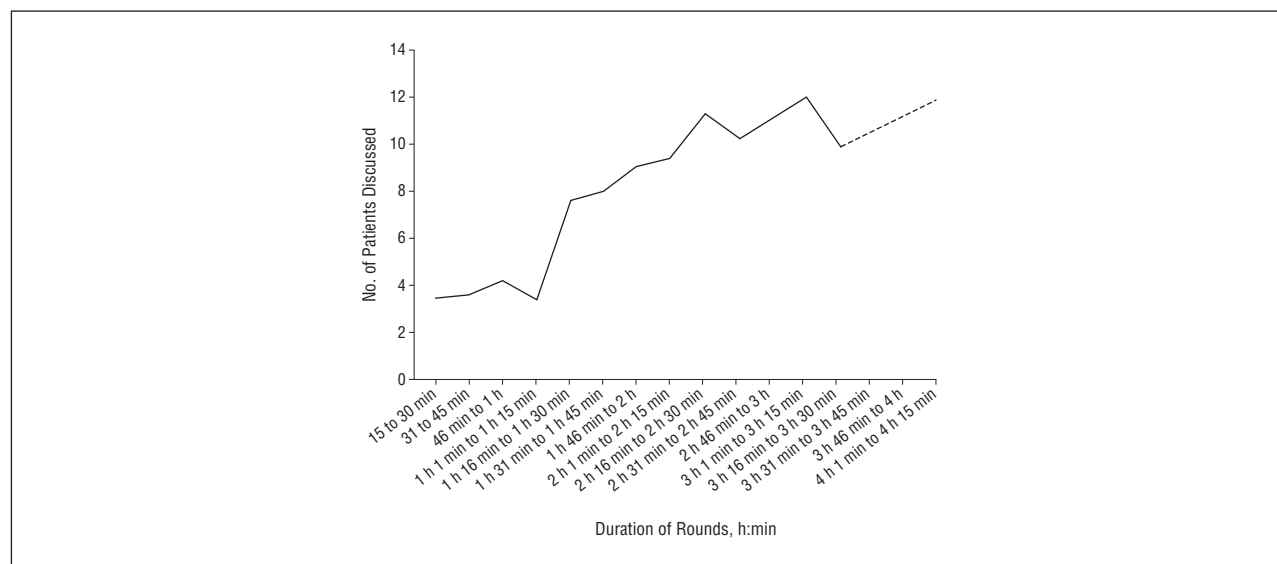
## DISCUSSION

In this study of attending rounds at 4 teaching hospitals associated with a large public medical school, we performed detailed observations of 90 rounds from July 1, 2010, through March 31, 2012. In general, we observed most rounds to consist of an attending and several resident and student trainees discussing a median of 9 patients during the course of approximately 2 hours. However, we observed great heterogeneity in the composition of participants in rounds, the number of patients discussed on rounds, the duration of rounds, and the location of activities on rounds. We observed a number of activities occurring frequently on rounds, including discussion of the patient care plan, diagnostic studies, the patient medication list, and communication with the patient. The teams rarely engaged in other activities on rounds, such as discussing deep venous thrombosis prophylaxis; the types of lines or tubes that were in place for a patient; nursing notes; communication with family, nurses, or other staff; and many teaching activities.

Attending rounds have always played an important role in patient care and medical education, but they may now occupy an even more prominent position in the life of medical trainees. Although past studies show that medical trainees are spending a decreasing amount of time engaged in patient care and education,<sup>8</sup> we found that attending rounds in the current era typically last longer.<sup>6-8</sup> Before the implementation of duty-hour restrictions in 2003, rounds lasted a mean of 90 to 100 minutes.<sup>6,7</sup> The only study performed since then reported a mean dura-



**Figure 3.** The duration of round episodes by number of episodes. Observations occurred during 90 round episodes.



**Figure 4.** Relationship of the number of patients discussed to the duration of the round. Observations occurred for a total of 807 patients. No rounds fell in the categories of 3 hours 31 minutes to 3 hours 45 minutes or 3 hours 46 minutes to 4 hours (Pearson product moment correlation,  $r=0.68$ ;  $R^2=0.47$  [ $P<.001$ ]).

tion of rounds of 105 minutes.<sup>8</sup> We found rounds to last a mean of 122 minutes. Of the maximum 80 hours of time house staff are allowed to work per week, 122 minutes daily for 6 days per week represents a large proportion of total training time (approximately 15%). Although the increase in the duration of attending rounds that we observed does not definitively indicate that trainees are spending more of their overall training time on rounds, it suggests that attending rounds remain a central activity for trainees.

We found that a large portion of attending rounds is dedicated to discussing patient care. Although recent observational studies reported that presenting patients accounted for the largest proportion of time on rounds,<sup>6-8</sup> it is unclear what information was actually conveyed within these presentations beyond review of the laboratory and imaging findings and medical record notes. We

found that many items that would seem important for patient care, such as the patient care plan and the drug list, were frequently discussed. However, other patient care items that would also seem important, such as deep venous thrombosis prophylaxis and the presence of invasive tubes and lines, were very infrequently discussed. With increasing emphasis on patient safety and preventable medical complications, addressing things that could mitigate these complications seems important. Although other methods outside rounds might ensure that deep venous thrombosis prophylaxis is given appropriately or that all unnecessary tubes and lines are removed, attending rounds present a natural opportunity to discuss these important issues and to address preventable medical complications.

Our study also suggests that communication with the patient is frequent, especially when rounds are at the bed-



**Table 1. Frequency of Activities Performed for All Patients on Rounds**

Activity	Frequency, No. (%) (n = 807)	Performed More Than Once per Rounding Day, % <sup>a</sup> (n = 90)
Patient care		
Discussion of patient care plan	780 (96.7)	90 (100.0)
Discussion of diagnostic study findings	732 (90.7)	90 (100.0)
Review of patient medications	555 (68.8)	86 (95.6)
Discussion of other staff notes	301 (37.3)	77 (85.6)
Discussion of DVT prophylaxis	131 (16.2)	57 (63.3)
Discussion of invasive tubes/lines	75 (9.3)	45 (50.0)
Discussion of nursing notes	50 (6.2)	29 (32.2)
Communication		
With patient	592 (73.4)	87 (96.7)
With nurses	97 (12.0)	54 (60.0)
With family	90 (11.2)	51 (56.7)
With other	51 (6.3)	32 (35.6)
Education		
Answering patient care question	514 (63.7)	89 (98.9)
General medical topics	367 (45.5)	84 (93.3)
Physical examination skills	118 (14.6)	61 (67.8)
Feedback	89 (11.0)	24 (26.7)
Evidence-based medicine	58 (7.2)	35 (38.9)
Oral presentation skills	38 (4.7)	29 (32.2)
History-taking skills	34 (4.2)	24 (26.7)
Learner-identified topic	26 (3.2)	20 (22.2)

Abbreviation: DVT, deep venous thrombosis.

side, but that interprofessional communication on rounds is lacking. The need for effective interprofessional communication has never been more important.<sup>15</sup> Studies show that lack of interprofessional communication, such as discussions with nurses and therapists, can be detrimental to care and that interventions to improve this communication can improve health care processes and outcomes.<sup>16</sup> Other opportunities for interprofessional communication exist at each of the included sites outside of attending rounds. Each site conducts a form of interdisciplinary, disposition, or social work rounds in the late morning or early afternoon, which typically consists of 1 physician from the medical team, at least 1 social worker, and (at times) a representative from nursing and/or therapy. In addition, opportunities typically occur for different caregivers to interact in a nonstructured manner throughout the day. Although these alternative opportunities for interprofessional communication exist, an opportunity to improve interprofessional collaboration and outcomes by more frequent engagement in and role modeling of this type of communication on attending rounds may also exist.

Finally, recent observational studies show that the percentage of time on rounds spent on educational activities has declined from 22% to 29% before to 9% after the implementation of duty-hour restrictions.<sup>6-8</sup> Among educational activities, we found that discussion of patient care questions and medical topic teaching frequently occurred (63.7% and 45.5% of patients, respectively), whereas all other teaching activities occurred infrequently. Our finding that physical examination skills are

**Table 2. Frequency of Common Activities on Rounds by Location**

Activity by Common Location	Activity Frequency, No. of Patients at Location/With Activity (%) <sup>a</sup>		
	All	At Bedside	In Other Location <sup>b</sup>
Communication with patient	592/807 (73.4)	587/592 (99.2)	5/592 (0.8)
Physical examination skills	118/807 (14.6)	116/118 (98.3)	2/118 (1.7)
Communication with nurse	97/807 (12.0)	63/97 (64.9)	34/97 (35.1)
Communication with family	90/807 (11.2)	89/90 (98.9)	1/90 (1.1)
Patient care plan	780/807 (96.7)	316/780 (40.5)	464/780 (59.5)
Laboratory/imaging findings	732/807 (90.7)	301/732 (41.1)	431/732 (58.9)
Drug list	555/807 (68.9)	229/555 (41.3)	326/555 (58.7)
Medical teaching	367/807 (45.5)	124/367 (33.8)	243/367 (66.2)
Other staff notes	301/807 (37.3)	115/301 (38.2)	186/301 (61.8)
Feedback	89/807 (11.0)	32/89 (36.0)	57/89 (64.0)

<sup>a</sup>Only activities that occurred among more than 10% of all patients are included.

<sup>b</sup>Locations include conference rooms, hallways, and doorways.

infrequently taught (14.6% of encounters) confirms findings from a recent study<sup>10</sup> showing that house staff believe their physical examination skills did not improve during an inpatient rotation and that faculty were not confident in their ability to teach physical examination skills. In addition, we found that teaching about learner-identified topics on rounds was very rare. Because the hours available for house staff training have decreased, teaching must be efficient and effective.<sup>11,12</sup> Learner-centered teaching models have been shown to improve the educational environment.<sup>17,18</sup> An opportunity may be available to improve education by incorporating more learner-identified teaching topics into the educational time on rounds or preferentially using learner-centered teaching concepts during attending rounds.

In our study, training of attending physicians in their role affected their behavior. Specifically, training increased the likelihood that they discussed issues of deep venous thrombosis prophylaxis, communicated with interprofessional team members, and provided feedback to learners. These findings confirm prior studies suggesting that faculty development can affect behavior.<sup>19,20</sup>

Our study has a number of limitations. The observations in this study represent only 4 teaching hospitals associated with 1 public medical school. These results may not be representative of rounding on a wider scale. By using 1 community teaching hospital, 1 large safety-net county hospital, 1 VA hospital, and 1 quaternary referral university hospital, we were able to observe rounds across the most common settings in which rounds take place in academic medical centers. Although our study is the largest and most contemporary observational study of attending rounds of which we are aware, we still included a relatively small number of observations. Whether increasing the number of observations would have significantly changed the results remains unclear. Finally, the presence of observers might have led to changes in behaviors on rounds. To minimize this observer effect,

we trained observers to be as unobtrusive, silent, and discreet as possible. Furthermore, we attempted to select observers who had minimal to no prior relationship with participants on rounds.

As the amount of time medical trainees spend providing patient care and engaging in medical education decreases, attending rounds present an increasingly precious opportunity to do both. Numerous activities that seem important for patient care and education occur frequently on rounds, but many other activities that may have a positive effect on patient care and education occur infrequently. To optimize patient care and education moving forward, we must assess the effect that characteristics and models of rounds have on patient care and education.

**Accepted for Publication:** February 25, 2013.

**Published Online:** May 6, 2013. doi:10.1001/jamainternmed.2013.6041

**Correspondence:** Chad Stickrath, MD, University of Colorado Denver School of Medicine, Medical Service, Denver VA Medical Center, 1055 Clermont St, Box 111, Denver, CO 80220 (Chad.stickrath@va.gov).

**Author Contributions:** All the authors had full access to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. *Study concept and design:* Stickrath, Prochazka, Anderson, Griffiths, and Aagaard. *Acquisition of data:* Noble, Griffiths, and Manheim. *Analysis and interpretation of data:* All authors. *Drafting of the manuscript:* Stickrath, Noble, Manheim, and Aagaard. *Critical revision of the manuscript for important intellectual content:* Stickrath, Prochazka, Anderson, Griffiths, Manheim, Sillau, and Aagaard. *Statistical expertise:* Noble and Griffiths. *Obtained funding:* Stickrath. *Administrative, technical, or material support:* Stickrath, Anderson, Griffiths, Manheim, Sillau, and Aagaard. *Study supervision:* Stickrath, Prochazka, Anderson, Manheim, and Aagaard.

**Conflict of Interest Disclosures:** None reported.

**Funding/Support:** This study was supported by the University of Colorado Academy of Medical Educators Rymer Family Endowment Grant.

**Additional Contributions:** Clifford Zwillich, MD, provided valuable inspiration, general guidance, and critical review for this study.

## REFERENCES

1. Di Francesco L, Pistoria MJ, Auerbach AD, Nardino RJ, Holmboe ES. Internal medicine training in the inpatient setting: a review of published educational interventions. *J Gen Intern Med*. 2005;20(12):1173-1180.
2. Shankel SW, Mazzaferri EL. Teaching the resident in internal medicine: present practices and suggestions for the future. *JAMA*. 1986;256(6):725-729.
3. Linfors EW, Neelon FA. Sounding boards: the case of bedside rounds. *N Engl J Med*. 1980;303(21):1230-1233.
4. Payson HE, Barchas JD. A time study of medical teaching rounds. *N Engl J Med*. 1965;273(27):1468-1471.
5. Reichman F, Browning FE, Hinshaw JR. Observations of undergraduate clinical teaching in action. *J Med Educ*. 1964;39:147-163.
6. Miller M, Johnson B, Greene HL, Baier M, Nowlin S. An observational study of attending rounds. *J Gen Intern Med*. 1992;7(6):646-648.
7. Elliot DL, Hickam DH. Attending rounds on in-patient units: differences between medical and non-medical services. *Med Educ*. 1993;27(6):503-508.
8. Priest JR, Bereckney S, Hooper K, Braddock CH III. Relationships of the location and content of rounds to specialty, institution, patient-census, and team size. *PLoS One*. 2010;5(6):e11246. doi:10.1371/journal.pone.0011246.
9. Accreditation Council for Graduate Medical Education. ACGME program requirements for graduate medical education in internal medicine: effective July 1, 2009. [http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/140\\_internal\\_medicine\\_07012009.pdf](http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/140_internal_medicine_07012009.pdf). Accessed January 23, 2013.
10. Crumlish CM, Yialamas MA, McMahon GT. Quantification of bedside teaching by an academic hospitalist group. *J Hosp Med*. 2009;4(5):304-307.
11. Harrison R, Allen E. Teaching internal medicine residents in the new era: inpatient attending with duty-hour regulations. *J Gen Intern Med*. 2006;21(5):447-452.
12. Reed DA, Levine RB, Miller RG, et al. Impact of duty hour regulations on medical students' education: views of key clinical faculty. *J Gen Intern Med*. 2008;23(7):1084-1089.
13. Kroenke K. Attending rounds: guidelines for teaching on the wards. *J Gen Intern Med*. 1992;7(1):68-75.
14. Janick RW, Fletcher KE. Teaching at the bedside: a new model. *Med Teach*. 2003;25(2):127-130.
15. Reeves S, Zwarenstein M, Goldman J, et al. Interprofessional education: effects on professional practice and health care outcomes. *Cochrane Database Syst Rev*. 2008;(1):CD002213. doi:10.1002/14651858.CD002213.pub2.
16. Zwarenstein M, Goldman J, Reeves S. Interprofessional collaboration: effects on practice-based interventions on professional practice and health care outcomes. *Cochrane Database Syst Rev*. 2009;(3). doi:10.1002/14651858.CD000072.pub2.
17. Aagaard E, Teherani A, Irby DM. Effectiveness of the one-minute preceptor model for diagnosing the patient and the learner: proof of concept. *Acad Med*. 2004;79(1):42-49.
18. Ferencik G, Simpson D, Blackman J, DaRosa D, Dunnington G. Strategies for efficient and effective teaching in the ambulatory care setting. *Acad Med*. 1997;72(4):277-280.
19. Steinert Y, Mann K, Centeno A, et al. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME guide No. 8. *Med Teach*. 2006;28(6):497-526.
20. Stes A, De Maeyer S, Gijbels D, Van Petegem P. Instructional development for teachers in higher education: effects on students' perceptions of the teaching-learning environment. *Br J Educ Psychol*. 2012;82(pt 3):398-419.

## INVITED COMMENTARY

# Attending Rounds

## Where Do We Go From Here?

In my own era of medical training some 20 years ago, most general medicine attending rounds were performed by subspecialists. These rounds were an extra burden for academic physicians 1 to 2 months a year when they were "on service" and attending ward service

was squeezed into their normal academic life of subspecialty clinical work and research. Daily attending rounds were not mandatory, and it was common to have an attending physician with limited knowledge and confidence outside of his or her own specialty. The care of pa-