Medical grand rounds: alive and well and living in Canada

Peter J. McLeod, MD; Phil Gold, MD

Grand rounds have long been the principal educational activity of departments of medicine at teaching hospitals. Several recent articles have suggested that there has been a general deterioration in the quality of grand rounds. To evaluate their status in Canada we mailed a questionnaire to the chairmen of the departments of medicine at the 53 Canadian teaching hospitals; of the 48 responses received (91%), 38 were from chairmen, 5 were from senior department members, and 5 were from chief residents. The results indicated that grand rounds continued to be the principal teaching exercise of the departments. Of the respondents 98% felt that the quality had improved or stayed the same. The overall attendance was considered to have improved or remained unchanged for the past decade by 75%; 25% thought that it had declined. The diminished emphasis on patient-related topics concerned 10%. The respondents gave numerous suggestions, which should help organizers to improve the impact of grand rounds on learning.

Depuis longtemps la présentation hebdomadaire constitue l'élément le plus important de l'enseignement au sein des services de médecine interne en milieu universitaire. Que la qualité de ces présentations soit généralement en baisse, on l'a laissé entendre dans plusieurs articles récents. Afin de savoir ce qu'il en est au Canada nous avons sondé par la poste les chefs des services de médecine interne des 53 hôpitaux universitaires du Canada. Des 48 répondants (soit un taux de 91%) 38 sont chefs de service, 5 médecins de rang élevé, 5 résidents-chefs. Les réponses font croire que les présentations restent l'élément principal de l'enseignement dans ces services. Leur qualité s'est maintenue ou s'est même améliorée selon 98% des répondants. Pour 75% des répondants l'assistance s'est maintenue au même niveau ou a augmenté; pour 25% elle a baissé. Le dixième d'entre eux déplore qu'on mette de moins en moins d'accent sur les questions touchant les malades. Les répondants y vont de nombreux conseils dont les organisateurs de présentations soucieux d'en améliorer la valeur pédagogique pourront faire leur profit.

A good medical grand round that combines substance and showmanship is a delightful experience and an effective teaching exercise. Regrettably, many physicians believe that medical grand rounds have deteriorated in quality and that they no longer meet past standards. Whitman[1] worried that the clinical cases presented are incidental to the presentation — "a vestigial organ in the body of the lecture". Landau[2] wrote, "The medical conferences of departmental chairman have become grand rounds which have become lectures!" Others[3,4] have bemoaned a lack of clinical focus of rounds and the

Dr. McLeod is associate professor, departments of Medicine and Pharmacology, McGill University, and senior physician, Montreal General Hospital. Dr. Gold is professor, departments of Medicine and Physiology, McGill University, and physician-in-chief, Montreal General Hospital.

Reprint requests to: Dr. Peter J. McLeod, Rm. 226, Department of Medicine, Montreal General Hospital, 1650 Cedar Ave., Montreal, PQ H3G 1A4

← For prescribing information see page 1129

rarity with which patients are present in the teaching theatre. In a widely quoted editorial Ingelfinger[5] pined for an era when "grand rounds, so popular and populous that they came to be held in a hospital's auditorium or similar facility, were well organized, decorous, stately and punctual exercises".

At a meeting of the Canadian Association of Professors of Medicine, held in Washington Apr. 28, 1988, concerns were voiced about irregular staff participation and late arrival of many attendants. Other problems frequently discussed include the replacement of patient-based teaching by didactic presentations and an overload of invited guest lecturers, who often have poor teaching skills.

Since most of our knowledge about the current state of medical grand rounds is derived from anecdotal sources we wanted to determine how well such rounds are really doing in Canadian teaching hospitals. To do this we surveyed the chairmen of the departments of medicine for information on how the rounds are organized, how they compare with rounds of yesteryear and how they are perceived by the organizers and the participants.

Methods

We developed and pilot-tested a questionnaire to evaluate medical grand rounds. In November 1988 we mailed the questionnaire with a covering letter and a stamped, preaddressed envelope to the chairmen of the departments of medicine at all Canadian teaching hospitals with training programs in internal medicine approved by the Royal College of Physicians and Surgeons of Canada.[6] The chairmen were asked to complete the questionnaire or forward it to the organizer of the grand rounds. We did a follow-up mailing to nonresponders in January 1989.

The first section of the questionnaire concerned current practices in the conduct of grand rounds. It included 14 Likert-style,[7] closed questions about the objectives and the content of grand rounds, the relative emphasis on clinical versus basic science topics and the degree of audience participation. There were also questions about the use of case presentations, the sources of speakers and the proportion of sponsorship of visiting speakers by pharmaceutical companies.

The second section dealt with the respondents' attitudes to grand rounds. Two closed questions asked about perceived changes in attendance and quality over the past decade. Three open-ended questions solicited opinions about the possible reasons for the changes in quality, what changes might improve it and what functions grand rounds serve that cannot be achieved by subspecialty rounds. In a separate section respondents were encouraged to comment freely about areas of grand rounds not addressed in the questionnaire.

Results

We received responses from 48 (91%) of the 53 departments surveyed. The chairman completed the questionnaire in 38 cases (79%), another senior department member responded in 5 (10%), and the chief resident, alone or with the chairman, responded in 5 (10%).

The grand rounds were organized by the chairman in 11 (23%) of the 48 hospitals, a senior staff member or a service chief (in hospitals where the responsibility for the rounds rotated among the subspecialties) in 18 (38%), the chief resident in 13 (27%) and the chairman and the chief resident in 6 (10%).

Clinical cases were presented as the focus of discussion by a resident or a clinical clerk in 32 (67%) of the hospitals and by a staff physician in 16 (33%). An attending staff member conducted the case discussion in 42 (88%) of the hospitals; senior residents were responsible for this or assisted in the discussion in up to 12 (25%).

All of the respondents strongly agreed or agreed that grand rounds were designed principally to

Table 1: Responses to questionnaire on objectives of medical grand rounds at teaching hospitals

Objective	Response; no. of respondents				
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Education	44	4	0	0	0
Presentation of research findings by departmental scholars	10	10	26	0	2
Showcase for "stars" of attending staff	4	13	26	3	2
Social interaction	4	9	24	7	4
Announcement of departmental notices	1	2	18	11	16

educate attending staff, residents and medical students (Table 1). Twenty respondents stated that the grand rounds function as a forum to present the research of departmental scholars; 17 replied that the role is often to showcase "stars" of the attending staff. Thirteen considered grand rounds to be a useful site for social interaction, and three felt that transmission of departmental notices was an important function.

Clinical case presentations were the dominant format, although patients were seldom present (Table 2). Basic science topics were regularly chosen for discussion in 36 (75%) of the hospitals. Guest lectures by local or visiting speakers were a common feature, and in many cases the guests were sponsored by a pharmaceutical firm. Clinical–pathological conferences were relatively common. Most (83%) of the respondents stated that active audience participation was always or frequently a part of the grand rounds.

Other formats less commonly used included state-of-the-art reviews, staff versus resident quizzes, clinical vignettes by house staff, morbidity and mortality conferences and "administrative grand rounds".

Of the respondents 17 (35%) noted an increase in attendance over the past decade, 12 (25%) a decrease and 19 (40%) no change.

Twenty-eight (58%) of the respondents claimed that the quality of the grand rounds had improved over the decade, 19 (40%) reported that it was unchanged, and only 1 indicated a decline. Among the reasons for the improvements were heightened attention to the presentations of invited participants, urging by the physician-in-chief to enhance the quality, greater variety of formats and presentation of two clinical cases rather than one. Many respondents also mentioned a direct relation between the quality of rounds and the degree of participation of attending staff in the discussions.

The free-comment portion of the questionnaire elicited numerous recommendations, observations and concerns. Many of the respondents suggested that the importance of grand rounds must continue to be emphasized as the academic departmental highlight of the week despite the recent trend to bolster subspecialty rounds, which do not have broad, general appeal. Many others strongly advocated audience participation and active discussion as crucial elements of grand rounds, as demonstrated by the following quotation: "Audience participation is almost invariably the most exciting part of the round and very often rescues the round from poor presenters." One respondent claimed that switching from the one to two case presentations in the hour had greatly improved the learning experience. Another reported that the first 10 to 12 minutes of the grand rounds at his hospital are dedicated to "horizons", an update on recent important research developments.

A number of useful suggestions emerged from the questionnaires.

- Patient-related problems should be the main focus of grand rounds. Clinical cases should always be selected with attention to their value to illustrate important, relevant problems and advances in our understanding of the fundamental abnormalities of functions. Formal discussion should be intimately related to the case presented.
- Speakers should be selected not necessarily for their expertise in the subject matter but, rather, for their ability to hold the audience's attention. Perhaps local speakers who are known to be skilled lecturers should be solicited more often than visiting guests, whose skills may not be known. The results of a recent Canadian study suggested that regular audience evaluation of local speakers would improve the overall quality of the presentations.[8]
- Basic science topics should be appropriately interwoven into the case discussion.
- Because learning is augmented through direct visual experience,[9] a return to the practice of having patients present in the amphitheatre should be con-

Table 2: Frequency with which components of grand rounds are used

Component	Frequency; no. of respondents				
	Always	Frequently	Sometimes	Rarely	Never
Clinical case presentations	12	26	8	2	0
Case presentations with patient in attendance	0	2	9	31	6
Basic science topics	1	14	21	10	2
Guest lecture by local or visiting expert	2	18	18	10	0
Guest lecturer sponsored by pharmaceutical firm	0	11	15	18	4
Clinical–pathological conference	0	3	24	16	5
Active audience participation in discussion	20	20	7	1	0

sidered. A number of the respondents suggested that even a short appearance by a patient whose case is being discussed would emphasize the relevance of the topic and enhance the likelihood that information would be remembered. Bogdonoff[3] mentioned that the presence of a patient with a specific clinical problem is "the essential initial ingredient" for grand rounds.

- The few studies on the retention of knowledge from lectures revealed no relation between learning and duration of the talk.[10,11] However, since active participation enhances learning, an "early stopping" rule should be upheld. If the length of the rounds is an hour, at least 15 minutes should be reserved at the end for questions and discussion. A successful question period requires a consistent chairman who can adeptly promote controversy and discussion and involve audience members without intimidation or embarrassment.
- The departmental chairman must continue to insist on punctual and regular attendance.

Discussion

The high response rate and the many comments show that there is a great deal of interest in and satisfaction with medical grand rounds for educating faculty members, residents and students. Since the respondents were responsible for conducting the rounds their responses were biased. Nevertheless, we believe that the opinions are valid and valued and that the data on the aims and the formats of the rounds were objective.

Despite the positive tone of most of the comments some respondents expressed reservations about how the grand rounds were conducted in their hospitals. A yearning for the past typified some responses. One chairman said, "I think we all feel grand rounds are not what they used to be. [They] are no longer the focal point." Among the negative features cited was a trend to replace case presentations and discussions with didactic presentations. A similar trend was noted at 101 teaching hospitals in the United States;[3] many of the presentations were devoted to topics in basic science, and patients were rarely present.

In our survey a substantial number of respondents indicated that presentations were given by guest experts who were sponsored by pharmaceutical companies. Although the industry makes valuable contributions to continuing medical education at all levels, this trend may be risky. Sponsored experts may be good scientists but poor speakers, and therefore the quality of the presentation suffers. In addition, the focus may have limited general appeal since the sponsoring company's marketing concerns would influence the topic. Organizers must ensure that presentations are balanced and broad and that pedagogic aims outweigh commercial advantages.

A final concern is the declining attendance among faculty members, which remains widespread but unexplained. Some respondents suggested that outside pressures from clinical duties were responsible; others blamed the diminished emphasis on clinical case presentations and discussions.

In summary, the department chairmen were still enthusiastic about medical grand rounds as a valuable teaching exercise, even though there were concerns about poor faculty attendance and declining patient emphasis. Organizers of medical grand rounds may find the results of this survey helpful in improving the impact of the learning exercise.

References

1. Whitman N: Developing lecture skills. In Edwards J, Marier R (eds): *Clinical Teaching for Medical Residents* (med educ ser), Springer, New York, 1988: 75-91
2. Landau R: Professors of medicine, stand up! *Arch Intern Med* 1983; 143: 212-213
3. Bogdonoff M: A brief look at medical grand rounds. *Pharos* 1982; winter: 16-18
4. Glaser RJ: More on grand rounds [C]. *N Engl J Med* 1979; 300: 440
5. Ingelfinger F: The graying of grand rounds [E]. *N Engl J Med* 1978; 229: 772
6. Division of Training and Evaluation, Royal College of Physicians and Surgeons of Canada: *Accredited Residency Programs*, Ottawa, 1988: 40-43
7. Morris JG: Questionnaires in medical education. *Med Teach* 1987; 9: 395-402
8. LaDelfa I, Higgins P: Evaluating medical grand rounds: results of the application of a method of evaluation in a university teaching hospital. *Ann R Coll Physicians Surg Can* 1988; 21: 25-28
9. Bennett MJ, Ewan CE: How to organize and conduct demonstrations. *Med Teach* 1981; 3: 127-130
10. McLeod PJ: The lecture — 40 minutes is enough [E]. *Ann R Coll Physicians Surg Can* 1987; 20: 15-16
11. Rutherford RJD: Medical student concentration during lectures. *Lancet* 1978; 2: 514-516