

Morning Report: A Tool for Improving Medical Education

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Summary:

Morning report (MR) is an important daily activity in the department of internal medicine and it is the most important educational activity in the residency training program. Same is true for any hospital that tends to promote their service through continuous medical education (CME). There is increasing demand to practice medicine which is evidence-based and medical education is no exception. Evidence-based, self-directed, learner-centered education proven to be more effective method of learning than the traditional

method for the medical residents and thereby more and more emphasis placed on such curricula in postgraduate medical education. The current standing on this issue reviewed to increase our awareness and improvement of MR in the era of Evidence-Based Medicine (EBM).

Keywords: Morning report (MR), Evidence-Based Medicine (EBM), Facilitator, Continuous medical education (CME).

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Introduction:

Morning report constitutes an important part of the daily routine in the department of internal medicine¹. The term "morning report" is used to describe case-based conferences where residents, attending physicians, and others meet to present and discuss clinical cases². Other terms used includes resident's reports, morning sessions, morning conferences, morning handover meeting.

Evolution of MR as an essential educational activity was not smooth. MR was criticized for presentation of cases done in the morning usually by the most junior member of the team, half sleepy and everybody discussing the case without actually seeing it and at the end getting nothing. But now MR is well accepted and a proven tool for resident's education universally.

Aim of Morning Report:

Aim varied in different institutions but main objective remains the same, education. It varies to satisfy a wide variety of audience. Various purposes of MR are – Education, Evaluation of residents, Evaluation of quality of the services offered by the institution, Detection of adverse events, Other issues (like ethics, cost effectiveness, administrative matters), Social interaction.

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Clear goals need to be established, after discussion with all concerns at various levels, what is to be accomplished at morning report. Having decision on specific goals, a mechanism to achieve those goals through execution and continuous evaluation, getting feedback and further refinement of goals, are necessary.

1) Education :

In a classical MR, the medical team-on-call during the night presents all the admissions with one case in details, followed by a general discussion on that case and related topics. The main educational goals are to teach the residents about the case-based learning, develop presentation skills, intellectual curiosity and draw conclusion from the clinical findings, review and planning patient management, promoting decision-making skills and finally develop a self-directed learning approach.

2) Evaluation of Residents :

Many residency programs use MR as a useful tool to evaluate resident's presentation skills, clinical skills, attitudes, punctuality, quality of care and ultimately the progress in clinical medicine. Though overall progress of the residents are assessed in the MR, yet there is no specific structured parameters for objective assessment of the individual residents.

3) Evaluation of the quality of service :

In MR, during discussion of the cases and their management, there is an automatic reflection of the quality of the service offered to the patients. Any pitfalls

in the management will come to light and discussion made by experts to clarify the issue and thereby to avoid recurrence of any such deficiencies in future.

4) Detection of adverse events :

During the discussion of the management issue the adverse effects of drugs, other adverse iatrogenic events that happens during patient care surfaces. Carefully addressing those issues increase the physician's awareness and reduction of occurrence of such adverse events. Study demonstrates that physicians self-reporting of adverse events adds to the usual hospital surveillance adverse event reporting, and finds that such reporting can be easily accomplished within the context of a daily teaching activity. The information provided about adverse events by housestaff at morning report is additive to that obtained by usual surveillance methods. The use of such a strategy provides information in a timely fashion.³

5) Other issues :

Issues like medical ethics, cost-effectiveness, administrative matters also discussed occasionally in MR. Though these are not core issues, their discussion gives MR a different dimension and flavor.

6) Social interaction :

MR provides an unique opportunity for residents and faculty members to socialize. In the survey of MR most of the attendee pointed that MR is an important daily social events for them. Serving food and drinks is also popular. In Schiffman's study two third of the programs served food and drinks during MR⁴.

Structure of Morning Report

The following organization are commonly observed in the MR.

1) Frequency, time and duration :

Usually done on a daily basis on each working day, 5 days per week. In most institutions MR lasts for 1 hour, starting from 8AM. Rarely "morning report" done in the afternoon to suit the work schedule of that particular institute. In most institute in Saudi Arabia, MR done early as the first activity of the day but there are suggestions that conducting MR after ward- rounds may be more useful as attending physicians can contribute significantly if they have 'real time' idea about the patients beforehand.

2) Attendance :

Participants varies across different programs and institutions. Attendance of residents and junior staffs are considered as mandatory, while some of the senior staffs, consultants and professors can be quietly absent. Chief of the Medicine or Director of the Program is present most of the time as is the Chief resident. Sometimes Pharmacist and Emergency room physicians also attend. Widespread participation of other staffs e.g pharmacist and medical students sometimes help to broaden the scope of knowledge and experience of the residents. But it may also considered by some as inhibition and disturbance of the fluency of case presentation and discussion. Atlas MC et al. described the evolution of the librarians' involvement in morning report, examples of kind of contributions librarians have made in this setting and changes made in morning report sessions to facilitate this activity (5).

3) Facilitator/Co-ordinator and Direction :

Facilitator(F) is usually a faculty member or consultant but occasionally a chief resident. It is chosen in different ways. It could be a consultant by rotation weekly, monthly or even daily or consultant-on-call. Some prefer consultant-on-call as most suitable for the coordination as he is aware about most of the cases and events of that day. It is important to remember that facilitator's main role is to facilitate, not to take over the whole MR. The leadership and coordination of the F is expected to lead direction where whole MR environment becomes self-directed, learner-centered, evidence-based teaching. A critical but non-hostile environment is vital. In no way MR should be a "Morning Distort" where on-call team defending the mishaps by denials, washing off hands and distancing.

The role of the facilitator is pivotal. His proper guidance & direction can make a real difference and change the whole environment of MR enjoyable and learner friendly. Here are the few tips for the facilitator (6) :

- Insist on complete, accurate case presentations and discourage casual, brief presentations. A complete,uninterrupted presentations takes only 5 minutes.
- Focus discussion on management of the patient in question.
- Give positive feedback in public, saving any negative feedback to be discussed privately after the meeting.

This avoids public humiliation, embarrassment or intimidation.

- Start the meeting on time and finish early wherever.
- Education should be a by-product of case discussions and not the primary focus.

4) Sitting Arrangement :

This is a very important but often neglected issue in MR setting. There is severe impedence of communication where people sit in rows one behind the other. Huge improvement of learning and communication environment can be done by modifying sitting arrangement by putting chairs in semi-circular way so that one can see each other easily when they communicate. Experience in our institute shows tremendous improvement in learning atmosphere since we start using semi-circular sitting arrangement. This is the single most important factor for instantaneous improvement in the learning environment of MR.

5) Case selection and Presentation :

It varies greatly. It could be a) elaborate presentation of one long case and brief presentation of all other cases or b) brief presentation of all the cases with discussion on important points in each case or c) detailed presentation of one or two interesting cases only. Time allocation varies accordingly. In our institution, currently we take 30 minutes for a long case, 15 minutes for short presentation of all other admissions and 15 minutes for answer to the previous day's searchable clinical questions as a part of practice of EBM format of MR. Case selection done by the on-call-team, initiated by the resident and agreed by the registrar.

Case mixes were made in a way that it covers all the important clinical conditions of the different systems over a period of time with special emphasis on the management aspect of the acute emergencies. Ramratnam B et al. concluded that residents presented cases at morning report that they felt were unique or rare in presentation or incidence for the purpose of discussing management issues. Complete resident freedom in choosing MR cases may narrow the scope of MR and exclude common diagnoses and other issues of importance such as medical ethics or economics (7).

More residents perceived that sleep loss and fatigue had major impact on their personal life during residency, leaving many personal and social activities and meaningful personal pleasures differed or propped.

Sleep loss and fatigue also had major impact on residents' abilities to perform their work (8). These factors should be taken in consideration when in developing new training guidelines and educational interventions for the residents.

6) Record Keeping :

Record keeping done for different purposes. For educational purposes, such as to keep the track record of the covered contents and to review any particular content of interest if needed in future. For patient's follow up-to compare the admission diagnosis and discharge diagnosis. For research – to use the data of the morning report as a source for future research. The use of computer is important to utilize the data for various purposes.

7) Follow up of patient :

A system of reporting patient's follow up in the morning report is important to maximize the education. Final diagnosis is not possible in many cases presented in MR. It needs follow up either at discharge or at OPD to get the final diagnosis. This does not only improve patient care but also improve resident's education.

At a university hospital, 58% of the cases were undiagnosed before presentation at the morning report. Of those cases, 23% of cases assigned a diagnosis at morning report that differed from the final diagnosis. It was concluded that the provision of follow-up at morning report is important for maximizing resident education⁹. Another study showed that most patients discharged without a firm diagnosis have one established by 6 months later—often with surprising results. Post-discharge follow-up information could enhance the educational value of inpatient cases¹⁰. In our institute we are planning to devote a portion of time of MR to allocate for the presentation of the follow up cases once per week.

8) Role Modeling :

The concept of role modeling is very important in MR setting. The juniors tend to learn from seniors. It is not uncommon to observe that seniors quarrel or argue in MR, in a manner which damage the whole learning environment and inter-personal relationship. All the senior members attending and participating in the MR must play their role in a way that it gives a positive note to the residents, both from academic and behavior point of view. This positive role modeling have long term positive impact on the residents.

Format of Morning Report

Format varies from institute to institute but some features are common. Most frequently used format is 'case-based presentation', followed by discussion on the various aspect of that case. But it was argued that the standard format of case presentation may be less than optimal¹¹. Over the years, different methods were tried to improve the case-base presentation such as presentation of prepared topics, use of overhead projector to show ECGs and photographic materials, learner-centered learning approaches. In learner-centered approach, the learner (usually resident) would take the prime initiative to formulate the goals of the session after presentation of the case and suggest questions based on these goals.

In 1997, Reilly and Lemon propose a Four-phased format of MR to improve learning from the MR¹². First Phase to discuss the assigned questions from the previous day. In Second Phase, residents briefly present all the admitted cases and chief resident used didactic methods to emphasize important teaching issues. Third Phase discuss the details of one particular case chosen for its educational value. In the final Fourth Phase which lasts 5 minutes, used to formulate the questions and assign them to the residents to present next day.

We, in our institution have adopted a modified format : first 30 minutes for a long case, next 15 minutes for all the short cases in brief and final 15 minutes for answer to previous days searchable questions.

Robert G Fassett and Steven J Bollipo describe experiment with 3 different formats of MR with their evaluation⁶. In the initial format—one or two selected cases, based on their educational value, were presented along with their investigations. Discussion centered on issues highlighted by the case. After the meeting, other patients admitted overnight were briefly handed over to the day doctors. But findings from quality improvement questionnaire suggested that reports on all patients admitted overnight should be presented, as participants expressed a dislike of lengthy theoretical discussions centered on one or two cases that sees to have little relevance to patient management. The 2nd format modified by the feedback includes formal teaching during the 2nd half-hour of the meeting in the form of presentations. The 3rd format is similar to initial format but with a stronger focus on punctuality, leadership, physician presence and patient-focused discussions. The Director of medicine coordinates the meetings and attendance by on-call physicians and representatives from all units is compulsory. An

attendance sheet was maintained. Complete uninterrupted presentation of each case including investigations, takes about 5 minutes. This final format becomes most popular. Other format utilizes brief case presentations by on-call residents , followed by an in-depth discussion of key points among representative subspecialty staff.

Elliott SP et al.¹³ demonstrates the inherent difficulties in changing an "institution" such as morning report. Thus examination of MR goals and satisfaction by individual training program should be conducted within the confines of the conferences' pre existing structure, without attempt to apply literature-driven expectations¹³.

Pre-conference preparation to delineate major teaching points, timely follow up of previously discussed cases, and generation of a pertinent bibliography are significant features of a format for morning report that provides a conference for exposing house staffs to a wide variety of internal medicine problems¹⁴.

Ambulatory morning report/Outpatient morning report is a relatively new idea. Increasingly, medical educators are looking for ways to train residents and medical students in outpatient medicine. One novel idea, outpatient morning report, draws upon the concept of inpatient morning report and applies a similar conference format to the outpatient setting¹⁵.

Wenderoth S et al. showed that a general medicine clinic is capable of exposing house staff to the wide breadth of internal medicine topics previously thought to be unique to subspecialty clinics¹⁶. Another study in USA at 2000 showed that a 24% prevalence of outpatient morning report in internal medicine program. The cohort of residents at a large teaching hospital reported that the conference contributed much to their education by meeting specific learning needs and covering topics not covered elsewhere in their residency training¹⁷.

Evaluation of Morning Report

Periodic evaluation of MR is the cornerstone to improve it. The following are some important tips for the evaluation of MR as suggested by Robert G Fassett et al⁶ :

- Conduct periodic format evaluation by questionnaire-based surveys.
- Obtain informal feedback by involving the group in discussions about improvement of the handover process.

- Implement changes in response to feedback to complete the quality improvement cycle.

Impact of Evidence-Based Morning Report

The impact of new format of Morning Report on the improvement of education and the quality of the service is encouraging. Improvement of the residents results in increase in their knowledge, presentation and management skills, ordering less investigations, fewer requests for consults and thereby overall improvement of the service of the institution. There is also long term benefit of positive change in attitude of residents through practice of medicine in an evidence-based manner.

One study involving survey of residents attitude showed that residents believed that morning report was a valuable educational experience. They preferred clinically based, open-ended interactive discussions led by attending physicians with a broad knowledge base (18). Another study found that residents expressed a desire for about 50% of the guest attending physicians to be generalists. In addition, they preferred a style in which challenging cases were presented in a stepwise manner (19). Internal medicine residents practicing self-directed learning by answering patient-specific questions reported improvement in knowledge and changes in patient care decisions (20).

Conclusion:

Morning Report is a time honored tradition, not just a ritual of early morning social gathering. It is a valued time for residents, an uninterrupted flow of priceless minutes set aside from the hectic morning schedule for learning and an opportunity for the residents to improve their knowledge, leadership, presentation, and problem-solving skills (2). In view of existence of varied format of morning report in different institutions, there should be a national guideline to adopt a uniform format of MR to benefit our residents and patients by ensuring better service. Continuous vigilance and feedback is needed to further improve the MR.

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