



Top Points in the Morning Report with Emphasis on Residents and Professors

Reza Ahmadi¹, Maryam Naseri², Shima Imannezhad³, Masumeh Ghazanfarpour⁴, Samaneh Movahedinia⁵, *Benyamin Fazli⁶

¹Assistant Professor of Emergency Medicine, Department of Emergency Medicine, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran. ²Fellowship of Pediatric Intensive Care, Department of Pediatrics, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran. ³Pediatric Neurologist, Department of Pediatric, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran. ⁴Student Research Committee, Kerman University of Medical Sciences, Kerman, Iran. ⁵Kerman University of Medical Sciences, Kerman, Iran. ⁶Assistant Professor of Intensive Care Medicine, Department of Anesthesiology, Mashhad University of Medical Sciences, Mashhad, Iran.

Abstract

Clinical education is presented in diverse forms within therapeutic environments, and the morning report has been a longstanding educational program for learners. Morning report is a significant educational method in medical sciences and, along with Grand Rounds, represents one of the most common and valuable educational approaches. This educational method encompasses specific characteristics and standards that, when comprehensively implemented, effectively facilitate medical students' learning. The primary purposes of morning report include patient-based education, comprehensive review of diagnostic and treatment processes, enhancing physicians' research capabilities regarding patient care, improving clinical decision-making skills, and providing individualized training tailored to learners' abilities. Moreover, morning report plays a crucial role in developing students' presentation skills and cultivating curiosity, research motivation, and systematic investigative approaches among learners.

The main applications of morning report include obtaining a comprehensive overview of ward activities, analyzing diverse diagnostic and therapeutic patient aspects, evaluating intern performance, assessing patient care services, identifying and understanding adverse events and their underlying causes, and facilitating meaningful interaction among medical staff. Each morning report session should include a minimum of two and a maximum of four patients in full detail. Patient selection prioritizes cases with significant diagnostic or therapeutic ambiguity, patients presenting with abnormal or rare medical conditions, and individuals demonstrating interesting or unique physical examination findings. A successful morning report necessitates systematic planning and organization across multiple stages: comprehensive preparation before the session structured and focused discussion during the session, and reflective evaluation and follow-up after the session concludes.

Key Words: Medical Student, Morning Report, Professors, Residents.

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*Corresponding Author:

Benyamin Fazli, MD, Department of Anesthesiology, Mashhad University of Medical Sciences, Mashhad, Iran.

Email: benjamin.fazli@yahoo.com.

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1- INTRODUCTION

Clinical education is fundamental to medical training, representing an indispensable pathway for developing efficient and competent physicians. In the clinical setting, learning centers on authentic professional challenges, motivating learners through active engagement and participation. This unique environment comprehensively integrates critical medical skills, including medical history taking, physical examinations, clinical reasoning, decision-making processes, empathy development, and professional commitment. Unlike educational approaches in other disciplines, physician training occurs within a real-world patient care environment, enabling direct interaction and experiential learning (1-5).

Teaching hospitals employ diverse methodological approaches to systematically develop learners' professional capabilities, with the morning report emerging as a pivotal educational program. This interactive process enables participants to collaboratively address diagnostic challenges, with patient discussions ranging from concise overviews of overnight admissions to comprehensive presentations of patients with unique or complex medical findings (6-11). The study aims to synthesize credible research and guidelines, offering valuable educational insights into morning report practices, with specific emphasis on guidance for medical assistants and professors.

2- MATERIALS AND METHODS

2-1. Data sources

In this systematic review, a comprehensive search was conducted across multiple electronic databases, including Medline (via PubMed), SCOPUS, Web of Science, ProQuest, CINAHL, ERIC, SID, Magiran,

CIVILICA, and Google Scholar, without temporal restrictions up to March 2023. The search strategy employed keywords and combinations such as "Morning Report", "Standards of Clinical Education", "Medical Education", "Residents", "Medical Students", "Teachers", "Professors", and "Top Points".

The search was performed independently and in duplicate by two reviewers, with any potential disagreements or discrepancies in the search results systematically resolved through consultation with the supervising research team.

2-2. Study selection

Database search was conducted to identify relevant studies, books, and clinical guidelines. The screening process involved systematically reviewing abstracts to determine study eligibility, obtaining full-text articles, and meticulously assessing their scientific merit to compile a comprehensive and final list of eligible research. This methodical selection process was performed independently and in duplicate by two reviewers, with any emerging disagreements or discrepancies resolved through consultation with a third independent reviewer. References were systematically organized and managed using EndNote software (version X8), ensuring precise and structured bibliographic management.

3- RESULTS

3-1. History of the Morning Report

In the early days of medical education, morning reports originated from practical medical necessities. Daily, the ward's lead physician would be briefed about patient conditions by the previous night's on-duty doctors and nurses. The primary purpose was to monitor the caregiving team's performance in teaching hospitals. Morning reporting holds a significant

position in most internal medicine education programs in the United States, aiming to introduce newly admitted patients, discuss their medical challenges, treatment strategies, and develop comprehensive diagnostic and treatment plans. Two primary discussion methods characterize morning reports: the case-oriented approach and the evidence-based approach. The traditional case-oriented method involves passive learning through lectures, where professors predominantly speak and students listen, emphasizing recall of scientific information. In contrast, the contemporary evidence-based approach prioritizes active research, self-learning, and patient problem-solving instruction. Modern medical education increasingly favors the evidence-based method, promoting a more dynamic, interactive learning environment that encourages critical thinking and active participant engagement (4, 12, 13).

3-2. Importance of Morning Report

Morning report serves multiple critical functions in medical education and clinical practice:

1. A Monitoring Mechanism

- Enables department heads to assess and evaluate the quality of clinical work
- Provides comprehensive oversight of patient care and medical team performance

2. Clinical Decision Evaluation Platform

- Creates an environment for peer review of on-call residents' clinical decisions
- Allows colleagues to constructively analyze and discuss diagnostic and treatment approaches.

3. Teaching and Leadership Development

- Offers senior residents an opportunity to practice and refine teaching skills

- Develops leadership capabilities through structured educational interactions

4. Professional Interaction and Morale Strengthening

- Facilitates daily interaction between residents and professors
- Promotes mutual professional support
- Enhances collective focus on improving patient care and medical education (14).

3-3. Morning Report Session Structure

A. Participants in Morning Report:

- Professors of the relevant department
- Residents
- Interns
- Medical students
- Occasionally, doctors and staff from the related educational and medical center
- Medical education coordinator (in select cases).

B. Session Management

- Morning report session leadership can be structured in three primary approaches:
- Typically managed by a faculty member
- In some instances, led by a senior resident
- Alternatively, managed by other residents.

3-4. Focus of Morning Report Discussion

The primary discussion priorities in morning report sessions include:

- Disease process (70%)
- Diagnostic examination (60%)
- Tests and procedures (approximately 50%)

- Evidence-based medicine
- Screening and prevention
- Medical ethics
- Research methods (4, 5, 14).

3-5. Morning Report Management

In morning reporting sessions, an active, search-oriented questioning learning method is prioritized over passive, rote information accumulation. Group discussions serve as a critical mechanism to facilitate dynamic, interactive learning experiences. The recommended approach emphasizes critical thinking, collaborative problem-solving, and engaging participants in a comprehensive, inquiry-based educational process. This method transforms traditional learning from a unidirectional information transfer to a multidirectional, participatory knowledge exploration.

A. Stages

1. Patient Introduction (5 minutes):

- Comprehensive presentation by resident/intern
- Essential clinical findings
- Paraclinical and imaging results
- Symptoms
- Initial differential diagnoses
- Diagnostic approach
- Initial treatment plan
- Future treatment strategy.

2. Feedback and Questioning (5 minutes):

- Professors and senior residents provide feedback
- Interactive questioning
- Collaborative discussion.

3. Resident Response (5 minutes):

- Addressing previous questions

- Brief overview of latest disease evidence
- Additional clinical insights.

4. Summarization (2 minutes):

- Moderator identifies key educational points
- Synthesizes main learning objectives
- Highlights critical clinical insights.

B. Patient Selection Criteria

1. Patient Selection Process:

- Senior resident selects patients from night shift admissions
- Focus on cases for morning report presentation.

2. Case Selection Guidelines:

- Prioritize interesting and challenging cases
- Emphasize educationally valuable clinical scenarios
- Ensure significant learning potential for participants.

3. Strategic Disease Planning:

- Recommended: Biannual (every 6-12 months) review
- Senior ward resident collaborates with ward head
- Develop comprehensive list of priority diseases for discussion
- Ensure systematic and structured educational approach.

C. Patient Presentation Guidelines

1. Session Patient Volume:

- Minimum: 2 patients per morning report session
- Maximum: 4 patients per morning report session
- Ensures comprehensive yet focused discussion.

2. Pre-Session Documentation:

- Record on whiteboard before session commencement:
- Number of patient referrals
- Hospitalizations
- Patient discharges
- Patient deaths during evening and night shifts
- Provides immediate contextual overview
- Facilitates comprehensive tracking of ward activities.

D. Session Preparation Protocol

1. Pre-Session Coordination:

- Session manager and senior resident collaborate
- Jointly select patients for presentation
- Mutually determine key training and educational points
- Establish clear objectives and focus areas
- Ensure alignment of discussion goals
- Promote structured and purposeful morning report session.

E. Documentation Protocol

1. Post-Session Report Preparation:

- Resident/intern responsible for patient introduction
- Prepares comprehensive summary of:
 - Patient's clinical history
 - Morning report discussion results.

2. Documentation Process:

- Submit report to session manager for review and signature
- Original report filed in section/department file
- Digital/photographic image added to introducing person's professional portfolio.

F. Patient Follow-Up Protocol

1. Individual Case Tracking:

- Resident/intern responsible for patient introduction
- Monitors diagnostic and therapeutic actions
- Documents:
 - Final diagnosis
 - Patient treatment outcome
 - Updates original patient report.

2. Periodic Comprehensive Review:

- Dedicated follow-up meeting every 1-2 months
- Attendees: All ward professors and residents
- Comprehensive review of tracked patient cases
- Facilitates collective learning and clinical insights.

G. Performance Evaluation Protocol

1. Team Performance Assessment:

- Comprehensive evaluation of on-duty team
- Covers two primary domains:
 - Patient management effectiveness
 - Morning report presentation quality.

2. Evaluation Methodology:

- Dedicated specialized assessment form
- Completed in each session
- Filled by:
 - Senior department resident
 - Attending professors present.

3. Objectives:

- Systematic performance tracking
- Continuous quality improvement
- Objective feedback mechanism
- Professional development support.

H. Session Quality Enhancement Strategy

1. Continuous Improvement Approach:

- Regular participant feedback surveys
- Focus on identifying improvement opportunities
- Systematic assessment of morning report sessions.

2. Survey Objectives:

- Gather participant perspectives
- Identify strengths and potential enhancements
- Promote ongoing educational quality refinement.

3. Implementation:

- Periodic survey administration
- Comprehensive participant input collection
- Actionable recommendations for session optimization (4, 14-20).

3-6. Popularity of Morning Reports among Residents

Research indicates that morning reports hold the highest educational value from the perspective of residents compared to conferences or other activities (21-24). The morning report is a popular training session for residents for several reasons:

- Residents must prepare and present a real patient during the morning report. Since they have chosen the patient, they tend to take greater responsibility in the discussions.
- Experience has shown that residents often select patients with diagnostic and therapeutic challenges, enriching the discussion by presenting these cases to professors and peers, along with educational insights (4, 14).

3-7. Ways to Improve the Morning Report

- Determine the organizer, leader, and moderator of the meetings in advance.
- Provide an organized framework for meetings, including the recording and archiving of reported cases.
- Develop a curriculum tailored to specific educational purposes for morning reporting.
- Strengthen the methods of searching for and finding evidence.
- Encourage students to think critically and solve problems based on their observations.
- Prevent the morning reporting session from deviating off-topic.
- Hold weekly or monthly follow-up meetings to revisit previous cases.
- Design case selection strategies aligned with course objectives and the expected skills of students.
- Utilize data collection tools (such as databases, archives, and logbooks) to monitor the content of morning report sessions (4, 14, 25-29).

3-8. Tips on Holding a Morning Report

- It is recommended to focus on step-by-step teaching and learning skills appropriate for residents based on their academic year. For example, interns and first-year residents should initially concentrate on taking patient medical histories, gradually progressing to more advanced skills in later stages.
- Before the morning report, the senior resident should review the patients admitted in the last 24 hours, select those to be introduced based on specified criteria, and discuss the main educational points related to each patient.
- Designate a specific individual to lead, direct, and coordinate the discussion of each patient.

- Once a month, review all patients referred during that month, following up on their diagnostic and therapeutic processes. This allows learners to become familiar with the entire patient history, including the course of the disease from beginning to end.
- A review article (by a senior resident or similar) should be researched regarding one introduced patient each week and presented to all residents. Additionally, create an archive of new review articles on important diseases discussed in the morning report.
- Establish an internal monitoring system for morning reporting that will:
 - Periodically monitor and review session content to ensure training objectives are met and duplication is avoided.
 - Provide guidance on selecting patients for future referrals and determine topics for upcoming discussions.
 - Record details of introduced patients and discussions from each session, compiling a permanent file and creating a coherent archive of information.
- Encourage participation from professors and residents from various fields.
- Implement incentive activities, such as recognizing the best presenter.
- Set clear goals for each month, determined by the senior resident or other responsible individuals.
- Foster an academic atmosphere free from fear, intimidation, and insults. Encourage a spirit of inquiry and curiosity while providing a positive learning environment that minimizes rivalry.
- Reintroduce patients previously reported in the morning report at regular intervals to update their disease information.

- Assessing learners and providing feedback is essential. It is advisable to acknowledge strengths publicly while addressing criticisms privately.
- Simple catering options such as coffee, tea, breakfast items, and sweets can enhance the meeting atmosphere, creating a friendlier environment that reduces anxiety (4, 14, 26-36).

4- CONCLUSION

A successful morning report requires careful planning and organization before, during, and after the sessions. To ensure an effective morning report, the following questions must be addressed:

- What are the goals of the morning report?
- What is the composition of the participants?
- What topics will be discussed and taught during the morning report?
- What criteria will be used to select referral patients?
- What is the meeting schedule?
- Who will serve as the moderator of the meeting?
- Who is responsible for preparing the educational message for the day at the end of the morning report session?
- Who will follow up with patients and inform others about their final diagnostic and therapeutic treatments?
- Who is responsible for evaluating the meetings?
- Who will introduce patients, and in what format will this be done?
- Who is responsible for inviting professors from other disciplines and overseeing the general execution of the meeting?

By addressing these questions, purposeful and well-planned meetings can significantly enhance the quality of education in the morning report.

5- AUTHORS' CONTRIBUTIONS

Study conception or design: RA, and BF; Data analyzing and draft manuscript preparation: MN, SI, MG, and SM; Critical revision of the paper: RA, and BF; Supervision of the research: BF and MN; Final approval of the version to be published: RA, MN, SI, MG, SM, and BF.

6- CONFLICT OF INTEREST: None.

7- REFERENCES

1. Basavanthappa BT. Nursing Education. New Delphi: Jaypee Brothers. 2003.
2. K B Gaberson, M H Oermann. Clinical Teaching Strategies in Nursing. 2nd ed. New York: Springer Publishing Company.2007.
3. Nair BR, Coughlan JL, Hensley MJ. Impediments to bed-side teaching. Med Educ. 1998 Mar; 32(2):159-162.
4. Saeidi M, Bahreini A. Top Tips in Morning Report. 1st ed. Tehran: Narvan; 2021.
5. Majidi F, Malekpour A, Shirani M, moezzi M, majidi N. The Structure of Morning Report in Major Departments of Shahrekord University of Medical Sciences Based on National Standards for Clinical Training Settings. Iranian Journal of Medical Education. 2018; 18:183-91.
6. Yazdani Sh. Main Messages of Determination of Clinical Medical Education Standards Project. Student and Education Deputy of Iranian Ministry of Health and Medical Education. Medical Education Research and Development Centre, 2009.
7. Razavi S M, Shahbaz Ghazvini S, Dabiran S. Students' Benefit Rate from Morning Report Sessions and Its Related Factors in Tehran University of Medical Sciences. Iranian Journal of Medical Education. 2012; 11 (7):798-806.
8. Moharari R, Soleymani H, Nejati A, Rezaeefar A, Khashayar P, Meysamie A. Evaluation of morning report in an emergency medicine department. Emerg Med J. 2010; 27(1): 32-6.
9. Reilly B, Lemon M. Evidence-based morning report: a popular new format in a large teaching hospital. Am J Med. 1997; 103(5): 419-26.
10. Gergory CK, Holumzer C. Sorokin R. Utilization Management Morning Report: Purpose, Plannings, And Early Experience in a university Hospital Residency program. Seminars in medical practice. 2001. 4(1):27.
11. Nair BR, Hensley MJ, Pickles RW, Fowler J. Morning report: essential part of training and patient care in internal medicine. Aust NZ J Med. 1995; 25: 740.
12. Negligence of the effectiveness of morning report. Teb va Tazkiye, 2014; 22(3): 43-50.
13. Parrino TA, Villanueva AG. The principles and practice of morning report. JAMA.1986; 256(6). 730-3.
14. Determination of Clinical Medical Education Standards Final Report. Student and Education Deputy of Iranian Ministry of Health and Medical Education. Tehran: Iranian Ministry of Health and Medical Education, Medical Education Research and Development Centre; Tehran, Iran, 2009.
15. Spencer J. ABC of learning and teaching in medicine Learning and teaching in the clinical environment. BMJ. 2003; 326: 591-4.
15. Ramratnam B, Kelly G, Mega A, Tilkemeier P, Schiffman FJ. Determinants of case selection at Morning report. J Gen intern Med. 1997; 12(5):2636.
16. Parrino TA. The social transformation of medical morning report. J Gen intern Med.1997 12(5): 3323.
17. Sacher AG, Detsky AS. Taking the stress out of morning report: An Analytic Approach to the differential Diagnosis. J Gen intern med. 2009; 24(6): 747-51.
18. Amratnam B, Kelly G, Mega A, Tilkemeier P, Schiffman FJ. Determinants of Case Selection at Morning Report. J Gen Intern Med 1997;12(5):263-6.
19. Abedini Z, Ahmari Tehran H, Khorami Rad A, Heidarpour A. Nursing Students Experience on Evidence –Based Learning in

- Clinical Setting: A Qualitative Study. *Iran J Med Educ.* 2012;11(8):864-73.
20. Omid A, Adibi P, Jouhari Z, Shakour M, Changiz T. Best Evidence Medical Education (BEME) : Concepts and Steps. *Iran J Med Educ.* 2012; 12(4):297-307.
21. Ways M, Kroenke K, Umali J, Buchwald D. Morning report. A survey of resident attitudes. *Arch Intern Med.* 1995; 155: 1433.
22. Gross CP, Donnelly GB, Reisman AB, Sepkowitz KA, Callahan MA. Resident expectation of morning report: a multi-institutional study. *Arch Intern Med.* 1999;159: 1910-14.
23. Sioofy BA, Nosraty L, Ebrahimi Mamagani M, Hajebrahimi S. Evidence-Based practice work book. (Translation) Glasziou P. First ed. Tabriz: Tabriz University of Medical Science; 2013.
24. Sadeghi M, Khanjani N, Motamedi F. Knowledge Attitude and Application of Evidence-Based Medicine among residents of Kerman Medical Science. *Iran J Epidemiol.* 2011; 7(3):2026.
25. Fassett RG, Bollipo SJ. Morning report: An Australian experience. *Med J Aust.* 2006; 184(4): 159-61. 7. Ways M, kroenke K, umali J, Buchwald D. Morning report. A survey of resident attitudes. *Arch intern med.* 1995. 155(13):1433-37.
26. Banks DE, Shi R, Timm DF, Christopher KA, Duggar DC, Comeggs M, Mclarty J. Decreased hospital length of stay associated with presentation of cases at morning report with librarian support. *J Med libr Assoc.* 2007.95(4):381-7.
27. Cox KR, Ewan CE. The medical teacher. 1st ed. London: Churchill Livingstone. 1988.
28. Arab M, Emadi Sh. Study of Obstetrics and Gynecology Training Program in Hamadan University of Medical Sciences and Health Services. Hamadan: Hamadan University; 1999. [Text in Persian]
29. Nasiri Toosi M, Mirzazadeh A, Naderi N. 12 Tips for a successful Virtual Morning Report. *Iranian Journal of Medical Education.* 2021; 21:9-1.
30. Beasley BW, Woolley DC. Evidence-based Medicine Knowledge, Attitudes, and Skills of Community Faculty. *J Gen Intern Med.* 2002; 17(8): 632-40.
31. Green ML. Evidence-based medicine training in internal medicine residency programs a national survey. *J Gen Intern Med.* 2000;15(2):129-33.
32. Amin Z, Guajardo J, Wisniewski W, Bordage G, Tekian A, Niederman LG. Morning report: focus and methods over the past three decades. *Acad Med.* 2000; 75(10 Suppl): S1-5.
33. Pupa LE Jr, Carpenter JL. Morning report. A successful format. *Arch Intern Med.* 1985; 145(5): 897-9.
34. Westman EC. Factors influencing morning report case presentations. *South Med J.* 1999; 92(8): 775-7.
35. Elliott SP, Ellis SC. A bitter pill: attempting change in a pediatric morning report. *Pediatrics.* 2004; 113(2): 243-7.
36. Pickard A, Ryan SP, Muldowney JA, Farnham L. Outpatient morning report: a new conference for internal medicine residency programs. *J Gen Intern Med.* 2000; 15(11): 822-4.