

Evaluating Morning reports by emergency medicine residents

Abstract

Background

Inpatient case-based teaching is used in morning report (MR). In light of the quick changes in medical practice, it's critical to gauge the residents' opinions of this teaching approach. In order to determine the viewpoint of emergency medicine residents on different parts of morning reports and to suggest a format based on our observations, our study used an observational cross-sectional methodology.

Method

Residents of King Saud Medical City (KSMC), King Salman Hospital, Aliman General Hospital, and Imam Abdulrahman Alfaisal Hospital participated in an observational cross-sectional survey on morning reports. The residents were given a 22-item questionnaire that asked them about the objective, structure, and substance of the morning report as well as who would be the best choice to present and conduct it and how frequently it should be done. The statistical program "Statistical Package for Social Sciences" was used for the analyses (SPSS)

Results

88.6% of residents agreed that the morning report should be presented by the post-call faculty. 53.3% of respondents said they preferred a general internist, while the chief resident who was conducting the report received a nearly identical response rate (54.6%). Discussion of particular intriguing instances was preferred by 34.6% of the residents since it would aid those 70% more in their post-graduate exams. The residents strongly agreed that management difficulties (86.6%) and diagnostic workup (90%) should be discussed in the morning report. Evidence-based medicine (66.6%) and disease processes (67.3% each) received equal ratings.

Conclusion

Morning reports are a valuable instructional tool and ought to be a requirement of all postgraduate residency programs, both domestically and abroad.

28 **Key Words:** Residents, Emergency medicine, Morning report.

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30 **Introduction**

31 Establishing the Morning Report as a significant teaching tool for residency programs all over
32 the world. It may provide a useful setting for both teaching and learning (1). In the morning
33 report activity, patients who have been admitted via the emergency room (ER) are presented, and
34 the attending and post-graduate trainees then discuss the situations. It serves as a useful case-
35 based teaching conference that can cover a wide range of subjects (2,3). Since the cases are
36 diverse, a wide range of subjects can be covered in a setting that serves all trainees at once.

37 The Morning Report can be used for a variety of things, but its most important use is case-based
38 teaching. Other uses for the Morning Report include reviewing management choices, assessing
39 residents' performance, assisting the Chief of Service in keeping track of developments, and
40 conveying medical knowledge. It has been said that The Morning Report is the intellectual high
41 point of the day (4). The fact that it is an interactive teaching session that incorporates students at
42 all levels and places a focus on group case discussions and active learning offers several
43 educational advantages for the residents (5).

44 There has been disagreement on the optimum structure and objectives of this activity because
45 this method of teaching medical knowledge is not well established. In order to make
46 recommendations for a more agreeable and productive morning report practice, we set out to
47 evaluate residents' opinions on the topic.

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49 **Method**

50 The Department of emergency management conducted an observational cross-sectional survey.
51 King Saud Medical City (KSMC), King Salman Hospital, Aliman General Hospital, and Imam
52 Abdulrahman Alfaisal Hospital are all were included in the study in Riyadh, Saudi Arabia.
53 Residents' information was gathered between January 2023 and March 2023. Following the
54 Morning Report session, a 22-item questionnaire was given to the emergency medicine doctors,
55 and they had four weeks to return the printed copy. There were about 150 emergency medicine

56 physician either Resident, Diploma, assistant Consultant, Consultant who attended the morning
57 report at the emergency department.

58 The sample size was determined by total coverage method, i.e all the emergency residence in the
59 selected hospital how accepted to participate in the study were included.

60 Each class runs from 7:00 to 8:00 for an hour. It should be emphasized that each week, the final
61 15 minutes of three of these sessions are given over to orthopedic situations. Morning reports are
62 scheduled to take place prior to the ED round, which typically lasts from 07:00.

63 All of the emergency residents, Diploma, Assistant Consultant, consultant and medical students
64 worked that day and the prior night's shifts attend the morning reports. At least two academic
65 staff members from that day and the night before also take part in these sessions. One of the
66 academic staff members is tasked to lead the session each day. Cases are presented by medical
67 students. They provide a thorough case history before going over the potential differential
68 diagnoses. The resident then goes into detail on how the case was managed and treated. The
69 session leader then leads the group through a highly involved conversation while making sure
70 that a number of preset learning objectives are thoroughly covered.

71 All of the trainees who responded to the survey provided written, informed consent. The details
72 of each response were kept private. The questionnaire, which asked for opinions on the purpose,
73 format, content, frequency, and appropriate presenters of the morning report, was based on a 0–5
74 Likert scale and was divided into several stems. The responses were divided into two categories:
75 negative responses (0–3) and positive responses (4–5).

76 For continuous variables, means and standard deviations were determined, and for categorical
77 variables, frequency was used. Using the Pearson Chisquare test, a univariate analysis was
78 carried out. The statistical program "Statistical Package for Social Sciences" was used for the
79 analyses (SPSS).

80 The Institutional Review Board at King Saud medical city exempted the study from Ethical
81 Review Committee approval, and the data collected were examined anonymously.

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83 **Results**

84 The mean age of 32.29 years (95% CI: 29.70-34.89). Residents made up 61.3% of the
85 participants. The principal goal of the morning report was scored as "improving clinical
86 problem-solving capacity" by 67% of the residents, followed by "improving presentation skills"
87 by 63% and "conveying medical knowledge to the residents" by 59%. 20% and 13%,
88 respectively, were not evaluated favorably for "evaluating resident performance" and
89 "stimulating clinical research".

90 88.6% of residents agreed that the morning report should be presented by the post-call faculty.
91 53.3% of respondents said they preferred a general internist, while the chief resident who was
92 conducting the report received a nearly identical response rate (54.6%). The Chairperson of the
93 Department of Medicine (22.6%) and medical subspecialists (34%) were not preferred to
94 perform the report, though. (Table 1)

95 Discussion of particular intriguing instances was preferred by 34.6% of the residents since it
96 would aid those 70% more in their post-graduate exams. The structure of the morning report,
97 "Bed-side instruction," received a rating of 59.3 from the participants. For the "distribution of
98 handouts," 63.3% was noted. (Table 2)

99 The residents strongly agreed that management difficulties (86.6%) and diagnostic workup
100 (90%) should be discussed in the morning report. Evidence-based medicine (66.6%) and disease
101 processes (67.3% each) received equal ratings. Discussions of medical ethics, screening and
102 prevention, and research methods received only moderately positive feedback from the residents.
103 (Table 2)

104 The junior resident should deliver the patient history, according to the majority of residents
105 (89.3%), who preferred the intern (82.6%). Medical faculty and students received very poor
106 ratings from all participants for the presenter. (Table 1)

107 The majority (91%) thought that the activity should be attended by all residents and interns. Very
108 few medical students, fellows, and faculty responded to the survey.

109 The two-weekly morning report was favored by the majority (69%) and was followed by the
110 weekly report (18%) and the daily report (13%). The most preferred times were from 9 to 10 am

111 (83%) and from 14 to 15 pm (11%), respectively. 92% of the participants thought it was a
112 successful teaching exercise overall.

113 Our analysis of the data between residents and other emergency medicine doctors revealed no
114 discernible differences in the perceptions of residents about Morning Report (Table 1 & 2). The
115 improvement in clinical problem-solving skills ($p=0.020$), post-call faculty conducting the
116 morning report ($p=0.04$), handout distribution ($p=0.034$), and bedside teaching ($p=0.006$) during
117 morning report were the only significant differences between the groups. (Table 1, 2)

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121 Table 1 Who will compile and deliver the morning report?

| | overall 150 emergency physician | emergency residents | others | P-value |
|---|---------------------------------------|------------------------|-----------|---------|
| | N (%) | N (%) | N (%) | |
| Asking about morning reports conduction? | | | | 0.689 |
| chief residents | 82 (54.6) | 42 (45.6) | 40 (68.9) | 0.043 |
| post call faculty | 133 (88.6) | 90 (97.8) | 43 (74.1) | 0.040 |
| chairman department of medicine | 34 (22.6) | 26 (28.2) | 8 (13.7) | 0.511 |
| internist | 80 (53.3) | 46 (50) | 34 (58.6) | 0.087 |
| medical sub-specialists | 51 (34) | 34 (36.9) | 17 (29.3) | 0.540 |
| fellow | 60 (40) | 31 (33.6) | 29 (50) | 0.689 |
| Asking about morning reports presentation? | | | 0 | |
| junior residents | 134 (89.3) | 78 (84.7) | 56 (96.5) | 0.955 |
| senior residents | 69 (46) | 37 (40.2) | 32 (55.1) | 0.511 |
| intern | 124 (82.6) | 74 (80.4) | 50 (86.2) | 0.233 |
| medical students | 23 (15.3) | 9 (9.7) | 14 (24.1) | 0.349 |
| faculty | 20 (13.3) | 13 (14.1) | 7 (12) | 0.269 |

123 **Table 2: Morning report format and content**

| | overall 150 emergency physician | emergency residents | others | P-value |
|-------------------------------------|---------------------------------------|------------------------|------------|---------|
| | N (%) | N (%) | N (%) | |
| Format of Morning Report | 129 (86) | 71 (77.1) | 58 (100) | |
| Review specific interesting cases | 52 (34.6) | 34 (36.9) | 18 (31) | 0.082 |
| Review only last night's admissions | 44 (29.3) | 22 (23.9) | 22 (37.9) | 0.215 |
| Review admission since last report | 44 (29.3) | 32 (34.7) | 12 (20.6) | 0.346 |
| Presentation on a set format | 58 (38.6) | 29 (31.5) | 29 (50) | 0.682 |
| Free presentation with time limit | 56 (37.3) | 19 (20.6) | 37 (63.7) | 0.493 |
| Distribute Journal articles | 60 (40) | 36 (39.1) | 24 (41.3) | 0.184 |
| Review for post-grad examination | 112 (74.6) | 62 (67.3) | 50 (86.2) | 0.490 |
| Distribute handouts | 95 (63.3) | 44 (47.8) | 51 (87.9) | 0.034 |
| Bedside teaching | 89 (59.3) | 57 (61.9) | 32 (55.1) | 0.006 |
| | | | 0 | |
| Contents of Morning Report | | | 0 | |
| Diagnostic workup | 135 (90) | 71 (77.1) | 64 (110.3) | 0.338 |
| Disease process | 101 (67.3) | 51 (55.4) | 50 (86.2) | 0.643 |
| Tests and procedures | 99 (66) | 49 (53.2) | 50 (86.2) | 0.624 |
| Evidence based medicine | 100 (66.6) | 55 (59.7) | 45 (77.5) | 0.480 |
| Screening and prevention | 85 (56.6) | 54 (58.6) | 31 (53.4) | 0.741 |
| Medical Ethics | 74 (49.3) | 50 (54.3) | 24 (41.3) | 0.388 |
| Research methods | 60 (40) | 32 (34.7) | 28 (48.2) | 0.890 |
| Management issues | 130 (86.6) | 86 (93.4) | 44 (75.8) | 0.928 |

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128 **Discussion**

129 While it incorporates a varied set of instructors and residents with various learning goals,
130 morning report has the potential to become a mainstay for emergency medicine residency
131 programs for years to come (6,7). It is regarded as an educational conference (8) where
132 knowledge is shared and emphasis is placed on inpatient medical education (7)(9).

133 In this study, we looked at respondents' opinions on several elements of the morning report. Our
134 findings revealed that the residents' top priorities for the morning report included "improving
135 clinical problem-solving ability," "improving presentation skills," and "conveying medical
136 knowledge to the residents." This was described in earlier research on the morning report, which
137 considered medical education to be its main goal (2,9).

138 Morning Report is a case-based clinical teaching activity; it does not aim to stimulate clinical
139 research. The participants in our survey's unfavorable preferences demonstrate this. The
140 participants did not strongly support the notion of using a morning report to assess residents'
141 performance [10]. Residents preferred post-call professors conduct the morning report,
142 preferably a general internist. This is in line with past research (10).

143 Additionally, the majority of respondents thought that discussing management issues with
144 diagnostic workup of specific interesting cases should be the standard for the morning report,
145 despite previous studies suggesting that the selection and mode of case presentation vary greatly
146 among programs and tend to reflect the preferences of the chief resident and attending physician
147 (7). Also, participants preferred morning meetings to bedside sessions, a finding that is
148 comparable to that made by Stickrath et al. in their study, which revealed that attending rounds
149 was more beneficial than bedside learning (11).

150 Although the majority of respondents in our study thought that handouts were not helpful,
151 Luciano found that this activity was improved by a toolkit that outlined expectations, taught
152 lesson plans, and contained feedback forms (12).

153 In our facility, a problem-focused discussion on differential diagnoses and management
154 challenges follows a step-by-step presentation of the entire history, physical examination, and
155 laboratory data. It has been hypothesized that this strategy fosters clinical problem-solving
156 abilities as well as making the debate more fascinating.

157 While most of the preceding research did not emphasize this need, the majority of the
158 participants stated the desire that the conversations be focused on their recurrent cases.

159 Morning report should be attended by all residents, medical officers, interns, post-call faculty,
160 and the chief resident, according to the residents, who preferred a junior resident or an intern to
161 present the patients. As a result, residents might interact with faculty members in a setting where
162 they could perhaps find role models (13).

163 Overall our participants thought the Morning Report was an effective teaching exercise and that
164 it was beneficial to devote an hour to it twice a week. Like other instructional exercises, this one
165 should be lively and provide outstanding results if carried out with a positive mindset and
166 enough interpersonal relations(14). Recently, it was discovered that using a "morning report
167 blog" in conjunction with case-based learning sessions had actual benefits (15).

168 **Conclusion**

169 The residence clinical problem-solving abilities, presenting skills, and knowledge base are all
170 enhanced by the morning report, an effective teaching strategy. The report should be directed by
171 postcall faculty, preferably emergency medicineresident rather than a medical subspecialist. It is
172 an exercise where learners can learn about the diagnostic process and management of particular
173 fascinating instances.

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175 **Consent**

176 As per international standard or university standard, Participants' written consent has been collected and
177 preserved by the author(s).

178

179 **Ethical Approval:**

180 As per international standard or university standard written ethical approval has been collected and
181 preserved by the author(s).

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