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## 4 Interactive Case Discussion is Superior to Lecture in Clinical Case Presentation for Resident Learning in Emergency Medicine

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**Background:** Follow-up case presentation (FCP), a staple part of conference education curriculum in emergency medicine residencies, has traditionally been delivered using PowerPoint (PP). Sole use of PP lecture format limits

**Table 1.** Questionnaire completion rate per PGY level.

PGY level		Group	
Frequency Percentage	Pre	Post	Total
1	12 24.00	9 23.08	21
2	15 30.00	14 35.90	29
3	12 24.00	11 28.21	23
4	11 22.00	5 12.82	16
Total	50	39	89

active audience participation and can induce learner fatigue, boredom, and information overload. In light of literature supporting chalk board and morning report formats, we changed FCP to an interactive chalkboard format with limited PP slides. We hypothesized that this change will enhance learners' perceived educational impact of FCP.

**Objective:** To identify the optimal format to deliver FCPs by examining emergency medicine residents' perceived educational impact of PP lecture compared to interactive chalkboard formats.

**Methods:** Design: Time series investigation with pre- and post-intervention questionnaires.

**Setting:** Harvard Affiliated Emergency Medicine Residency (HAEMR) didactic conference education curriculum.

**Subjects:** 60 HAEMR emergency medicine residents (PGY 1-4).

**Observations:** Questionnaires using 5-point Likert scales were used to measure residents' attitudes and perception of the FCPs before and after the intervention of changing from a PP lecture to interactive chalkboard formats. The questionnaires were compared using Mantel-Haenszel chi-square tests.

**Results:** Pre- and post-intervention questionnaire completion rates were 83.3% (50/60) and 65% (39/60), respectively. FCPs using chalkboard format were perceived by learners to be significantly more effective than traditional PP lecture-based FCPs at knowledge transfer, teaching practical knowledge, stimulating self-

knowledge assessment, encouraging the generation of broad differential diagnoses, and promoting an interactive learning environment that fosters group discussion.

**Conclusions:** Implementation of a chalkboard format with interactive learner discussion is perceived by learners to be the superior didactic educational medium compared to exclusive use of PP lecture for FCPs.