Patient as Co-Teacher on Rounds: a Pilot Study

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INTRODUCTION

Patients enjoy bedside rounds and perceive providers who engage in bedside rounds as more compassionate.^{1–4}

The aim of this study was to determine whether the patient as co-teacher at the bedside improved the overall rating of rounds.

METHODS

This study was approved by Partners Institutional Review Board. Patients, residents, nurses, and attendings provided verbal consent for surveys and written consent to be videotaped.

Study and control patients were asked to participate (AAP and HMS). Interested study patients were “coached” for 15–30 min by the resident (AAP) the day before to ask a question. The resident (AAP) created a brightly colored folder (Staples File Folders, Assorted Colors # 875429) which showed the question on the front and answer inside (see Fig. 1). The answer required approximately 30 min to produce. Rounds began with the patient holding up the question. The team's answers acted as the jumping off point for teaching by the resident (AAP) filmed by IAK. Control patients were filmed (HMS) during usual bedside rounds.

The bedside rounds were videotaped using an iPhone 6 and stored on a password protected Drop Box.

The videos were evaluated by physicians using a verbal and non-verbal previously validated checklist with permission.⁵

The first two video evaluators were trained by AAP in a short session lasting 5–10 min. When significant inter-observer variability was noted, seven new evaluators were given more extensive training for at least 15–30 min.⁵ The first set of evaluators' data was not included.

A statistician calculated descriptive statistics and analyzed data using Z test for proportions.

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RESULTS

Forty-three patients were enrolled in the study, 36 in the control group and 7 in the pilot innovation group. One hundred twenty-one surveys were completed, 97 from the control group and 24 from the pilot group (Table 1). The overall rating for bedside rounds was significantly improved in the pilot innovation group with 91.7% of all responders (patients, attendings, residents, and nurses) giving rounds an “Excellent” rating compared to 40.2% in the control group ($p < 0.001$). One hundred percent of patients in the innovation group rated the teaching on rounds as “Excellent” compared to 60% of patients in the control group ($p < 0.001$). Study patients' anonymous verbatim comments about what they liked best included “It was a lot of fun and interesting.” and “The details about my case and pancreatitis in general.” Attending comments were “How the presentation improved team-patient dynamic.” and “Great format with the introduction of the clinical question by the patient followed by house staff interaction, resident education, patient narrative and concluding with a review of and rationale for guidelines applied to the specific patient.” PGY-1 resident comments were “Inclusion of patient.” and “Concise, high yield.”

The average length of control videos (mean 9.21 min) was statistically longer than that of the study videos (mean 7.04) ($p = 0.045$). Control videotapes captured the entire bedside rounds while study videos focused on the co-teaching.

Of the 24 items on the video checklists, there were eight statistically significant differences between the study group and control group. The study group outperformed the control group in terms of nodding, rapport building, and in asking open-ended questions ($p = 0.013$, 0.008 , and 0.023 , respectively). The control group outperformed the study group in terms of plan given, plan explained, patient expresses understanding of plan, patient agrees to plan, and patient's questions answered and touch ($p = < 0.001$, < 0.001 , < 0.001 , < 0.001 , and 0.01 , respectively).

DISCUSSION

We propose that the patient as co-teacher on bedside rounds is a useful intervention that focuses on the patient's being an important part of medical education.

Figure 1 Example of question posed by patient on acute pancreatitis as co-teacher and evidence-based summary given by resident at bedside.

The three-pronged intervention of question followed by team responses and a visual takeaway provided a concise, high-yield educational intervention during bedside rounds.

The weaknesses of our study include the small study sample size, significantly shorter study videos, and selection of interested patients.

Strengths of the study are that it was performed on a busy inpatient medical floor and there was 75% inter-rater agreement among the coders.

The introduction of the patient as co-teacher significantly improved the overall rating of bedside rounds. Not only did patients enjoy participating in their own care, they also directly contributed to educating the team.⁶

Table 1 Survey of Co-Teaching by Patients and Residents on Bedside Attending Rounds

	All respondents Study group (n = 24)	All respondents Control group (n = 97)	p value
Rate today's rounds % "Excellent"	91.7	40.2	< 0.001
	Attendings Study group (n = 7)	Attendings Control group (n = 23)	p value
Rate today's rounds % "Excellent"	100	13	< 0.001
	Residents Study group (n = 5)	Residents Control group (n = 18)	p value
Rate today's rounds % "Excellent"	80	11.1	0.004
	Attendings Study group (n = 7)	Attendings Control group (n = 23)	p value
Bedside attending rounds contributed to my daily medical education % "Strongly Agree"	85.7	17.4	0.003
	Attendings Study group (n = 5)	Attendings Control group (n = 23)	p value
The patient played an active role in teaching during today's bedside rounds % "Strongly Agree"	85.7	30.4	0.022
	Residents Study group (n = 5)	Residents Control group (n = 18)	p value
The patient played an active role in teaching during today's bedside rounds % "Strongly Agree"	40	11.1	0.304

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Compliance with Ethical Standards: This study was approved by Partners Institutional Review Board. Patients, residents, nurses, and attendings provided verbal consent for surveys and written consent to be videotaped.

Conflicts of Interest: The authors declare that they do not have conflict of interest.

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