

Patient Whiteboards as a Communication Tool in the Hospital Setting: A Survey of Practices and Recommendations

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Disclosure: Nothing to report.

BACKGROUND: Patient whiteboards can serve as a communication tool between hospital providers and as a mechanism to engage patients in their care, but little is known about their current use or best practices.

METHODS: We surveyed bedside nurses, internal medicine housestaff, and hospitalists from the medical service at the University of California, San Francisco. A brief survey about self-reported whiteboard practices and their impact on patient care was administered via paper and a commercial online survey tool.

RESULTS: Surveys were collected from 104 nurse respondents (81% response rate), 118 internal medicine housestaff (74% response rate), and 31 hospitalists (86% response rate). Nurses were far more likely to use and read whiteboards than physicians. While all respondents highly valued the utility of family contact information on whiteboards, nurses valued the importance of a “goal for the day” and an “anticipated discharge date” more than physicians. Most respondents believed that nurses should be responsible for accurate and updated information on whiteboards, that goals for the day should be created by a nurse and physician together, and that unavailability of pens was the greatest barrier to use.

DISCUSSION: Despite differences in practice patterns of nurses and physicians in using whiteboards, our findings suggest that all providers value their potential as a tool to improve teamwork, communication, and patient care. Successful adoption of whiteboard use may be enhanced through strategies that emphasize a patient-centered focus while also addressing important barriers to use. *Journal of Hospital Medicine* 2010;5:234–239. © 2010 Society of Hospital Medicine.

Communication failures are a frequent cause of adverse events^{1–4}; the Joint Commission (TJC) reports that such failures contributed to 65% of reported sentinel events.⁵ Strategies to improve communication have focused on implementing formal teamwork training programs and/or teaching specific communication skills.^{6–13} While these strategies largely address communication between health-care providers, there is a growing emphasis on developing strategies to engage patients in their care, and improving communication with them and their families.

In 2007, TJC announced a new National Patient Safety Goal (NPSG) that “encourage(s) patients’ active involvement in their own care as a patient safety strategy.”¹⁴ This builds upon a landmark Institute of Medicine report that highlighted patient-centeredness as 1 of the 6 domains for delivering high-quality care.¹⁵ Current literature on developing such patient-centered strategies enumerates several approaches, including better access to health information, use of innovative technology solutions, and focused efforts at improving communication.^{16–18}

The placement of whiteboards in patient rooms is an increasingly common strategy to improve communication. These boards, typically placed on a wall near a patient’s hospital bed, allow any number of providers to communicate a wide range of information. Both Kaiser Permanente’s Nurse Knowledge Exchange program and the Institute for Healthcare Improvement’s Transforming Care at the Bedside

promote whiteboard use, though with little specific guidance about practical implementation.^{19,20} Despite their growing prevalence, there is no published literature guiding the most effective uses of whiteboards, or describing their impact on communication, teamwork, or patient satisfaction and care. We present findings from a survey of patient whiteboard use on an academic medical service, and offer a series of recommendations based on our findings and experiences.

Methods

We anonymously surveyed bedside nurses from 3 inpatient medical units, internal medicine housestaff, and faculty from the Division of Hospital Medicine at the University of California, San Francisco (UCSF). We solicited experiences of physician and nursing leaders who were engaged in whiteboard interventions over the past 2 years to identify relevant topics for study. Their experiences were based on isolated unit-based efforts to implement whiteboards through a variety of strategies (eg, whiteboard templates, simple identification of provider teams, goals for the day). Their input guided the survey development and the suggested recommendations. The topics identified were then translated into multiple-choice questions, and further edited for clarity by the authors. A Likert scale was used that measured frequency of use, usefulness, and attitudes toward patient whiteboards. An open-ended question seeking

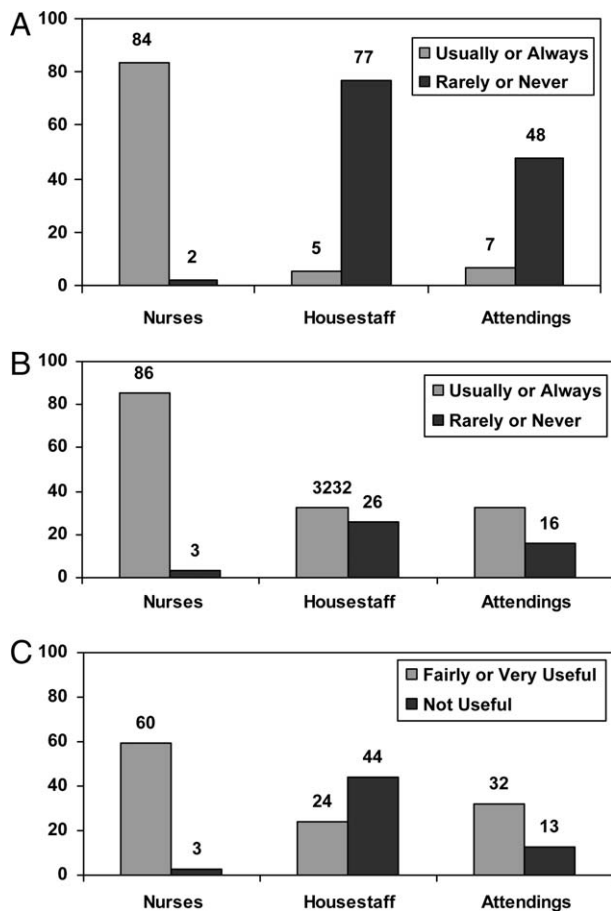


FIGURE 1. Patient whiteboard practices. (A) How often do you write on a whiteboard in a patient's room? (B) How often do you read what is written on a whiteboard in a patient's room? (C) How useful do you find the information on a whiteboard in a patient's room? (A-C) Percent responding to each option.

“additional comments about patient whiteboards” was also asked. The survey was administered to nurses at staff meetings and through physical mailboxes on their respective patient care units with a 1-month collection period. The survey was administered to housestaff and attendings via e-mail listserves using an online commercial survey administration tool.²¹ The nursing surveys were later entered into the same online survey administration tool, which ultimately provided summary reports and descriptive findings to meet the study objectives. Our project was reviewed and approved by the UCSF Committee on Human Research.

Results

Survey responses were collected from 104 nurse respondents (81% response rate), 118 internal medicine housestaff (74% response rate), and 31 hospitalists (86% response rate). Nurses were far more likely to write on whiteboards, read what was written on them, and find the related information useful (Figure 1A-C). Nurses, housestaff, and attendings all believed the bedside nurse was the single most important

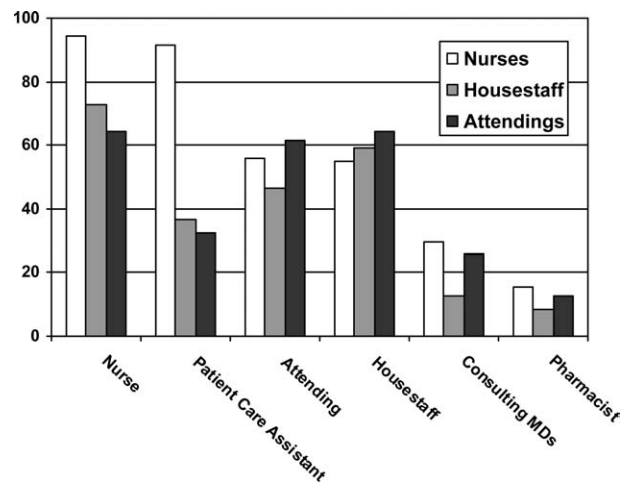


FIGURE 2. Utility of specific providers listed on a patient whiteboard. Percent who responded “very useful.”

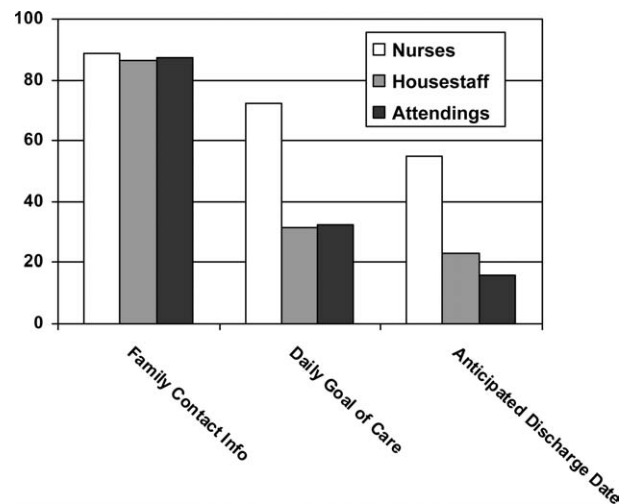


FIGURE 3. Utility of specific information written on a patient whiteboard. Percent who responded “very useful.”

provider name listed on a whiteboard. However, the respondents differed in their rated value of other providers listed on the whiteboard (Figure 2). Nurses gave higher ratings to the utility of having patient care assistants (PCAs) listed as compared to housestaff and attendings. Overall, respondents felt it would be less useful to list consultants and pharmacists than the nurse, attending, and housestaff. All of the respondents believed family contact information was the most useful information on a whiteboard, whereas more nurses rated a “goal for the day” and “anticipated discharge date” as more useful than housestaff and attendings (Figure 3).

From an operational standpoint, the majority of respondents felt that nurses should be responsible for the information on a whiteboard, nurses and physicians together should create goals for the day, and the greatest barrier to using whiteboards was not having pens easily available

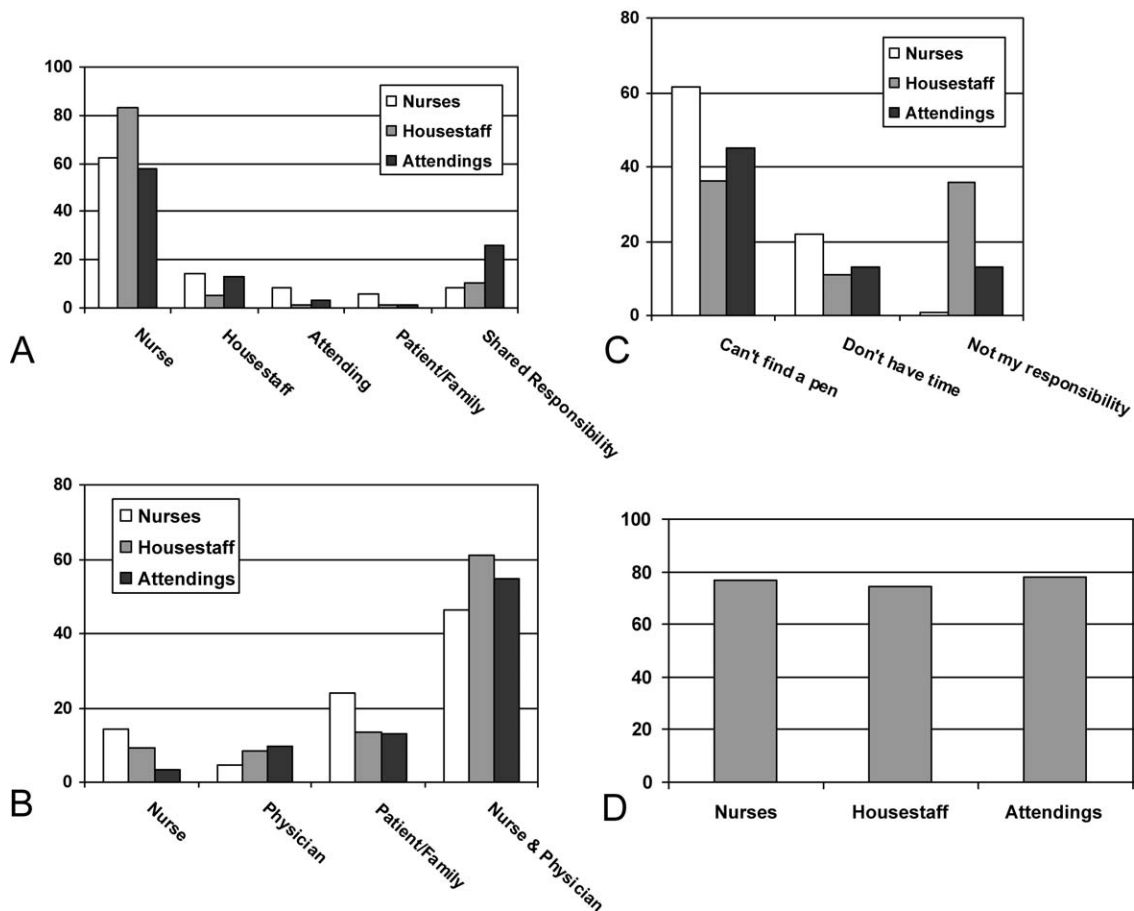


FIGURE 4. Operational aspects of patient whiteboard use. (A) Who should be responsible for the information on a patient whiteboard? (B) If writing a goal for the day on a whiteboard, who should create the goal? (C) What are the barriers to using a patient whiteboard? (D) Creating predesigned whiteboards with templates that clearly define the information to be written on them would increase their use. (A-C) Percent responding to each option. (D) Percent who responded “agree” or “strongly agree.”

(Figure 4A-C). Most respondents also agreed that using templated whiteboards (with predefined fields) to guide content would increase their use (Figure 4D). All respondents believed that whiteboard use could improve teamwork and communication as well as patient care (Figure 5). Respondents also offered a variety of specific comments in response to an open-ended question about whiteboard use (Table 1).

Discussion

Our findings demonstrate the potential value of patient whiteboards, which is supported by the vast majority of respondents, who agreed their use may improve patient care and teamwork. It is also clear that whiteboard use is not achieving this potential or being used as a patient-centered tool. This is best illustrated by findings of their low rate of use and completion among attendings and housestaff (Figure 1A, B) and the lack of consensus as to what information on the whiteboards is useful. Patient whiteboards require defined goals, thoughtful planning, regular monitoring, and ongoing evaluation. The challenges around effective

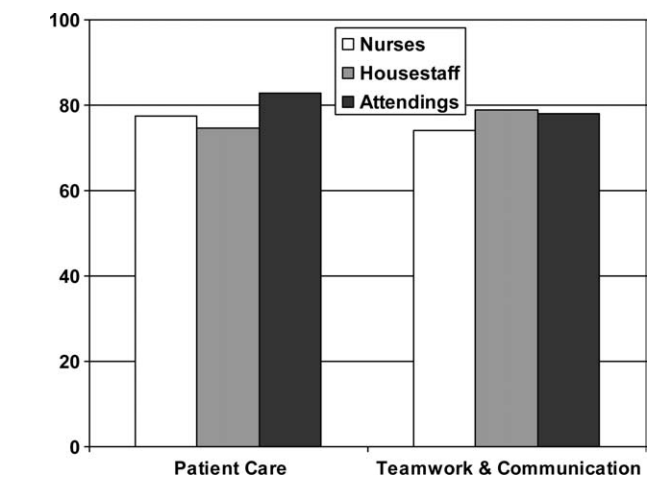


FIGURE 5. Role of whiteboard in improving patient care and teamwork. Percent who responded “agree” or “strongly agree” to “Use of whiteboard can improve...”

adoption and implementation is perhaps more about ensuring compliance and completion rather than simply gaining buy-in and engagement for their value.

TABLE 1. Selected Respondent Comments About Whiteboard Use

From nurses	<p>If MDs were engaged in using (or reviewing the information on) whiteboards more, it might reduce the number of times we page them to clarify care plans. It might be helpful to have a dedicated section on the whiteboard where families can write questions that are separate from other information that the nurse writes on them.</p> <p>Part of the bedside nurse role is to be a patient advocate and the whiteboard can be a tool to assist in this important responsibility. Nothing is worse than a patient (or family member) asking me, “What’s the plan for the day?”—and being unable to do so because a goal (or scheduled procedure) hasn’t been communicated to me by the MD or written on the whiteboard.</p> <p>I would use [whiteboards] more if they were clearly being used as a patient-centered communication tool rather than trying to improve communication between us and the MDs.</p>
From physicians	<p>The boards need to be kept simple for success.</p> <p>There needs to be specific training to make this a cultural norm across care providers and reinforced on a regular basis. If it’s a priority, there should be audits, tracking for performance (accuracy and updated info), and feedback to providers. I would also ask patients what info they would like to see, as [whiteboards] should be patient-centered, not provider-centered.</p> <p>Having providers intermittently write on whiteboards should not be considered a substitute for communication. In fact, this would likely only further display our lack of cohesive communication to patients and families.</p> <p>I have been skeptical that the “goals for the day” for an ill patient can be satisfactorily reduced to a statement that fits on a whiteboard and that forecasting a day of discharge well in advance is frequently wrong and may create more confusion than it alleviates. I am also concerned that if a “goal for the day” on a whiteboard is intended for the nurse, this is substituting for richer channels of communications, such as the nurse reading the progress notes, speaking with the physicians, or communicating through the charge nurse who attends our case management rounds.</p> <p>Whiteboards are frequently not accurate, underused, and they require patients to have visual acuity, cognition, and speak English—all challenges depending on your patient population.</p>

While the differential use of whiteboards between nurses and physicians was not surprising, a few specific findings warrant further discussion. First, it is interesting that nurses rated their own names and that of PCAs as the most useful, while physicians rated the nurse’s name as being of equal value to their own. This may speak to the role PCAs play for nurses in helping the latter provide bedside care, rather than a reflection of the nurses’ perception of the value of PCAs for patients. Second, while all respondents rated highly the value of family contact information on the whiteboard, nurses valued a “goal for the day” and “anticipated discharge date” more highly than did physicians. These findings likely reflect that nurses desire an understanding about plans of care and if they are not communicated face-to-face as the most effective strategy,²² they should at least be spelled out clearly on a whiteboard. This is supported by evidence that better collaboration between nurses and physicians improves patient outcomes.²³ It may also be that physicians place more value on their own progress notes (rather than whiteboards) as a vehicle for communicating daily goals and discharge planning.

Other practical considerations involve “who owns it” and, if we do create goals for the day, whose goals should they represent? The majority of nurse and physician responses advocated for nurses to be responsible for accurate and complete information being updated on whiteboards. A larger percentage of attendings favored shared responsibility of the whiteboard, which was reinforced by their support of having goals for the day created jointly by nurses and physicians. Interestingly, a much smaller percentage of respondents felt goals for the day should be driven by patients (or family members). These data may

point to the different perspectives that each individual provider brings—physician, nurse, pharmacist, discharge planner—with their respective goals differing in nature. Finally, it is also interesting that while attendings and housestaff believed that whiteboards can improve patient care teamwork/communication (Figure 5), a much smaller percentage actually read what is on them (Figure 1B). This may reflect the unclear goals of whiteboards, its absence as part of daily workflow, the infrequency of updated information on them, or perhaps an institution-specific phenomenon that we will use to drive further improvement strategies.

Selected respondent comments (Table 1) highlight important messages about whiteboard use and provide helpful context to the survey responses. We found that the goal of whiteboard use is not always clear; is it to improve communication among providers, to improve communication with patients, a tool to engage patients in their care, or some combination of the above? Without a clear goal, providers are left to wonder whether whiteboard use is simply another “task” or really an intervention to improve care. This may in part, or perhaps fully, explain the differences discovered in whiteboard use and practices among our surveyed providers.

If, however, one were to make clear that the goal of patient whiteboards is to engage patients in their care and help achieve an important NPSG, methods to implement their use become better guided. A limitation of our study is that we did not survey patients about their perceptions of whiteboards use, an important needs assessment that would further drive this patient-centered intervention. Regardless, we can draw a number of lessons from our findings and devise a set of reasonable recommendations.

Recommendations

We provide the following set of recommendations for hospitals adopting patient whiteboards, drawing on our survey findings and experiences with implementation at our own institution. We also acknowledge the role that local hospital cultures may play in adopting whiteboard use, and our recommendations are simply guidelines that can be applied or used in planning efforts. We believe effective use of a patient whiteboard requires a patient-centered approach and the following:

1. Whiteboards should be placed in clear view of patients from their hospital bed

A simple yet critical issue as placing a whiteboard behind a patient's bed or off to the side fails to provide them with a constant visual cue to engage in the information.

2. Buy and fasten erasable pens to the whiteboards themselves

In our institution, purchasing pens for each provider was a less effective strategy than simply affixing the pen to the whiteboard itself. A supply of erasable pens must be available at the nursing station to quickly replace those with fading ink.

3. Create whiteboard "templates"

Our findings and experience suggest that structured formats for whiteboards may be more effective in ensuring both important and accurate information gets included. Blank whiteboards lead to less standardization in practice and fail to create prompts for providers to both write and review the content available. Anecdotally, we created a number of whiteboards with templated information, and this did seem to increase the consistency, standardization, and ease of use.

4. Whiteboard templates should include the following items:

- a. Day and Date

This serves to orient patients (and their families) as well as providers with the date of information written on the whiteboard. It is also an important mechanism to ensure information is updated daily.

- b. Patient's name (or initials)

With bed turnover (or patient transfers to different beds and units) commonplace in hospital care, we believe that listing the patient's name on the board prevents the potential for patients (and their families) or providers to mistakenly take information from a previous patient's care on the whiteboard for their own.

- c. Bedside nurse

This was noted as the most useful provider listed on a patient whiteboard, which is quite logical given the role bedside nurses play for hospitalized patients.

- d. Primary physician(s) (attending, resident, and intern, if applicable)

This was noted as the next most important provider(s) and perhaps increasingly important both in teaching

and nonteaching settings where shift-work and sign-outs are growing in frequency among physicians.

- e. Goal for the day

While this was not a consensus from our survey respondents, we believe patients (rather than providers) should ultimately guide determination of their goal for the day as this engages them directly with the plan—achieving a patient-centered initiative. In our experience, an effective strategy was having the bedside nurse directly engage patients each morning to help place a goal for the day on their whiteboard.

- f. Anticipated discharge date

While understanding the potential for this date to change, we believe the benefits of having patients (and their families) thinking about discharge, rather than feeling surprised by it on the morning of discharge, serves as an important mechanism to bridge communication about the discharge process.²⁴

- g. Family member's contact information (phone number)

- h. Questions for providers

This last entry allows a space for families to engage the healthcare team and, once again, create an opportunity for clarification of treatment and discharge plans.

5. Bedside nurses should facilitate writing and updating information on the whiteboard

Without our survey findings, this might have generated debate or controversy over whether nurses should be burdened with "one more task" to their responsibilities. However, our nurse respondents embraced this responsibility with spontaneous comments about their patient advocate role, and stated that whiteboards can serve as a tool to assist in that responsibility. Furthermore, not a single nurse respondent stated as barrier to use that "I didn't think it was my responsibility." Nonetheless, whiteboard use must be a shared communication tool and not simply a tool between nurse and patient. Practically, we would recommend that bedside nurses facilitate updating whiteboards each morning, at a time when they are already helping patients create a goal for the day. Other providers must be trained to review information on the whiteboard, engage patients about their specific goal, and share the responsibility of keeping the information on the whiteboard updated.

6. Create a system for auditing utilization and providing feedback early during rollout

We found that adoption was very slow at the outset. One strategy to consider is having designated "auditors" check whiteboards in each room, measuring weekly compliance and providing this feedback to nurse managers. This auditing process may help identify barriers that can be addressed quickly (eg, unavailability of pens).

Finally, it is important to comment on the confidentiality concerns often raised in the context of whiteboard use. Confidentiality concerns largely arise from personal health information being used without a patient's explicit consent. If

our recommendations are adopted, they require whiteboard use to be a patient-centered and patient-driven initiative. The type of information on the whiteboard should be determined with sensitivity but also with “consent” of the patient. We have not experienced any concerns by patients or providers in this regard because patients are told about the goals of the whiteboard initiative with our above principles in mind.

Conclusions

Patient whiteboards may improve communication among members of the healthcare team (eg, nurses, physicians, and others) and between providers and their patients (and family members). Further investigation is warranted to determine if adopting our recommendations leads to improved communication, teamwork, or patient satisfaction and care. In the meantime, as many hospitals continue to install and implement whiteboards, we hope our recommendations, accompanied by an emphasis on creating a patient-centered communication tool, offer a roadmap for considering best practices in their use.

Acknowledgements

This study of patient whiteboards developed during the Triad for Optimal Patient Safety (TOPS) project, an effort focused on improving unit-based safety culture through improved teamwork and communication. The authors thank the Gordon and Betty Moore Foundation for their active support and funding of the TOPS project, which was a collaboration between the Schools of Medicine, Nursing, and Pharmacy at the University of California, San Francisco.

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