

Practice Concepts and Policy Analysis

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Beyond Grand Rounds: A Comprehensive and Sequential Intervention to Improve Identification of Delirium

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Purpose of the Study: Delirium is a widespread concern for hospitalized seniors, yet is often unrecognized. A comprehensive and sequential intervention (CSI) aiming to effect change in clinician behavior by improving knowledge about delirium was tested. **Design and Methods:** A 2-day CSI program that consisted of progressive 4-part didactic series, including evidence-based reviews of delirium recognition, prevention, and management, interspersed with interactive small group sessions and practical case conferences was conceptualized in consultation with a leading expert on delirium. Pretest and posttest instru-

ments were designed to test the attendees on their knowledge and confidence around delirium identification. **Results:** An average of 71 people attended each didactic session. Among all responses, 50 pretests and posttests were matched based on numeric coding (6 MD/DOs, 34 RNs, and 10 others). Mean pretest and posttest scores were 7.9 and 10.8 points, respectively (maximum: 17), showing a positive change in knowledge scores after the intervention (2.9 points, $p < .001$). Improvement in knowledge scores was higher in the cohort attending 2 or more lectures (3.8 points, $p < .001$)

compared with those attending only 1 lecture (1.3 points, $p < .12$). Confidence in identifying patients with delirium increased by 28% ($p < .001$), and self-assessed capacity to correctly administer the Confusion Assessment Method increased by 36% ($p < .001$). **Implications:** A novel CSI increased clinician knowledge about delirium identification and management and improved confidence and self-assessed capacity to identify delirium in the hospitalized elderly patients. This strategy, which incorporates multiple reinforcing modes of education, may ultimately be more effective in influencing clinician behavior when compared with traditional grand rounds.

Key Words: Confusion Assessment Method, Continuing medical education, Multifaceted, Interaction, Clinician education program

Traditional medical grand rounds have been considered the standard for physician training and continuing medical education (CME). Grand rounds originated in postgraduate medical training as the primary means of imparting new information (Hull, Cullen, & Hekelman, 1989). This time-honored model of education was patterned after undergraduate medical education and based upon a belief that gains in knowledge lead to improvement in physician practice and, in turn, to improvement in patient outcomes (Davis et al., 1999).

More recently, the idea of using solely didactic CME activities to effect practice improvement has been called into question (Davis et al., 1999; Van Hoof, Monson, Majdalany, Giannotti, & Meehan, 2009a). Although they may change elements of competence, such as knowledge, clinical skills or attitudes, didactic interventions alone consistently fail to change performance of health care providers or improve health outcomes (Bellolio & Stead, 2009; Forsetlund et al., 2009; Greene et al., 2004). A recent Cochrane Review indicated that interventions using an interactive educational format had greater effects than those using a didactic format, and multifaceted interventions were better than single interventions (Forsetlund et al., 2009). Also, combining didactic and interactive interventions was found to be more effective than either component alone.

Other factors can play a role in educational program success. For instance, buy-in from senior management in health care can play a monumental role in the success or failure of such endeavors. Hospital leadership is pivotal in promoting and

sustaining educational programs directed at continuous quality improvement (Bradley et al., 2003; Van Hoof, Monson, Majdalany, Giannotti, & Meehan, 2009b). One study indicated that senior management support (or lack thereof) was viewed as the most important factor determining whether their intervention program was successfully implemented and sustained (Bradley, Webster, Schlesinger, Baker, & Inouye, 2006). Furthermore, the success of the innovation depended on administrative understanding, belief, and support.

Recently, issues of patient safety and quality of care have been brought to the forefront and highlighted by the Centers for Medicare and Medicaid Services, as well as by private insurance providers, through the development of reimbursement initiatives that tie payment to quality performance (Bradley et al., 2006). These issues have motivated senior hospital administrators to become actively engaged in improving clinical quality programs.

Delirium, defined as an acute decline in attention and cognition, is a common, life-threatening and potentially preventable clinical syndrome in older adults. The development of delirium often initiates a cascade of events culminating in the loss of independence, increased risk of morbidity and mortality, and higher health care costs. Nationally, reported prevalence of delirium on hospital admission ranges from 14% to 24%, whereas incidence during hospitalization can be as high as 56% (Inouye, 2006). Delirium complicates hospital stays for more than 20% of hospitalized patients aged 65 years and older each year and increases hospital costs by \$2,500 per hospital stay (Van Hoof et al., 2009a). Importantly, delirium is often unrecognized by physicians and nurses, is often not coded as a diagnosis, and is not adequately managed in the clinical setting.

The perceived need to address a clinical topic, along with an assessment of the possibility of change and improvement, is critical to set the stage for an effective intervention. The overall goal of this initiative was to impact the knowledge of clinicians caring for elderly patients through comprehensive education on delirium prevention, recognition, and management. With this aim, the Geriatrics Services Core Team, along with a leading content expert, developed a novel educational strategy as part of an effort to improve the outcomes of hospitalized geriatric patients experiencing delirium.

Going beyond the traditional grand rounds format, the educational methods incorporated five evidence-based criteria demonstrated to be effective

for CME with a goal of changing clinician practice (Van Hoof et al., 2009a). These criteria were needs assessment, commitment to change, multifaceted intervention strategy, sequencing of educational activities, and interaction. Based on the innovative aspects of this education program, the interdisciplinary focus (involving nurses, physicians, and administrative staff among others), as well as the multicomponent approach in dissemination of information (sequential didactic sessions interspersed with interactive small group sessions), this was named by the authors as a comprehensive and sequential intervention (CSI).

Methods

Delirium, the main focus of the CSI initiative, is a widespread concern in hospitalized seniors. Because rates of delirium can be decreased with systematic interventions and hospital protocols, delirium was considered to be a crucial topic to address throughout the hospital (Inouye et al., 1999; Ranhoff et al., 2006).

Needs Assessment

The educational intervention was implemented at a 305-bed community hospital with a university affiliation, which serves as a training site for a Family Medicine (FM) Residency Program; for nursing, pharmacy, physical medicine, and rehabilitation; and for nutrition services students. A 32-bed Acute Care of Elders (ACE) Unit was opened in January 2009, where regular clinical rounds and process improvement activities occurred. Nursing staff on the ACE Unit received 16 hr of cumulative clinical and didactic training regarding new nursing protocols and physician order sets. Customary education continued and consisted of yearly 1-day programs for all nursing units and lectures to the resident physicians as part of the didactic curriculum on a regular basis. After the appointment of an attending geriatrician, grand rounds focusing on topics in geriatrics were also being held.

Through these activities, delirium was identified as an area of substantial knowledge deficit. Clinicians across several disciplines were not adequately preventing, identifying, or managing delirium, despite attempts to address this issue through these traditional educational programs. Lack of knowledge and confidence in identifying patients at risk for or experiencing delirium limited the use of

these tools. Also, lack of understanding of the serious clinical and financial costs of delirium made its management a lower priority than other aspects of care.

Once the need for further education around delirium was recognized, a formal needs assessment was launched. It included literature reviews, statistical projections, chart reviews, medical informatics reports, and expert opinion. Based on conservative estimates of prevalence applied to average annual admissions, the hospital was estimated to have at least 1,000 cases of delirium per year among its hospitalized seniors (Inouye, 2000). The needs assessment was confirmed and validated during a consultation visit by a geriatrician from a nationally reputed academic institution, as well as a hospital-wide geriatric institutional assessment profile performed under the Nurses Improving Care for Health System Elders program.

The intervention was then designed to provide comprehensive education on delirium prevention, recognition, and management using immersive teaching-learning strategies to impact staff awareness of delirium hospital wide. It included both clinical and support staff including resident and attending physicians, medical students, nurses, nurse aides, volunteer staff, case managers, pharmacists, medical informatics, hospital administration, risk management, and invited geriatricians from neighboring hospitals.

Commitment to Change

The ambitious goal of the educational program was to effect change, both at the bedside and system wide, by increasing awareness and knowledge about delirium. Specifically, addressing clinician knowledge and confidence through such immersion could be expected to impact care of elderly patients. The chief executive officer made attendance at the didactic sessions mandatory for department directors, and they, in turn, supported and encouraged attendance of their team members. Nursing leadership encouraged their staff to participate as well. Timing of didactic and small group sessions was planned to coincide with change of shift. Parallel Continuing Nursing Education (CNE) sessions for nursing personnel were offered between the lecture sessions to encourage off-duty staff to attend as well. Physician leadership encouraged the participation of community-based attending physicians and hospital-employed physicians (resident physicians and faculty).

The Medical Informatics and Quality Improvement group were drawn into this hospital-wide quality improvement activity. The involvement of hospital administration, departmental leadership, and clinical and volunteer staff created institutional recognition of the importance of delirium management and an environment conducive to change.

Multifaceted Intervention Strategy and Sequencing

The CSI included a 2-day visiting professorship by an internationally recognized expert on delirium, targeting direct patient care providers from multiple disciplines throughout the hospital. The objectives for this visit went beyond didactics and employed a novel educational strategy, consistent with recommended evidence-based CME practices (Van Hoof et al., 2009a).

The CSI program included a multifaceted intervention incorporating progressive didactic sessions interspersed with interactive small group sessions. Each didactic session was self-contained, with key content repeated in subsequent sessions to reinforce select concepts (e.g., use of low-dose haloperidol as first-line drug therapy for delirium in elderly patients). The four-part didactic lecture series included evidence-based material and addressed clinical and administrative issues (Table 1). The interspersed small group sessions were directed toward clinicians and were sequenced to build on didactic sessions and facilitate adoption of practical strategies at the bedside (Table 2).

Interaction

Although research methodology of Van Hoof is geared toward physicians, the CSI extrapolated this methodology and employed an interdisciplinary and multilevel approach. Intended to provide a workshop atmosphere, the small group sessions included medical rounds, interdisciplinary ACE Unit case discussions and problem solving, peer discussion, and active reflection about gaps in care and barriers to change.

Implementation of the Intervention

The Geriatric Services Core Team planned and organized the visiting professorship. As the first step, an internationally recognized expert on delirium recognition and prevention was identified. The medical director of the ACE Unit served as a liaison with the invited speaker, and external funding was obtained. Extraneous costs were absorbed

by the hospital. Affected departments were identified and involved early in the planning process (e.g., Information Systems, Environmental Services, Public Relations). Logistics involved scheduling, budgeting, publicity, content development, CME/CNE application, development of knowledge questionnaires, preparation of educational materials, audio-visual arrangements, and post-event evaluation and analysis. Specifically, in order to overcome space constraints and increase information dissemination, live streaming of the lectures was made available at remote locations within the hospital.

Measurement of Outcomes

Pretest and posttest surveys were conducted to assess impact, based on the evidence-based information in the speaker's presentation and hand-out materials (Appendix). The surveys were used to evaluate change in knowledge and confidence around delirium identification and management. Participants were asked to identify which lectures they attended to determine the effect of serial lectures and interactive sessions on knowledge and confidence gained. The test design matched results for participants prior to their first attended lecture and at the completion of the last attended lecture. Respondents received credit for choosing the correct answers. Because seven of the eight knowledge questions included multiple answer choices, these items were scored with a penalty for selecting incorrect options, such that selecting all options would yield a score of 0. Selecting only wrong options yielded a negative score, whereas selecting only correct answers yielded a positive score.

Difference scores were calculated based on the posttest value minus the pretest value. A dose-response analysis of gain scores was done using Student's *t* ratio for independent groups. The mean gain scores were compared for the group that reported attending only one lecture compared with the group that reported attending more than one lecture. Overall gain for all the attendees was done using the matched group *t* ratio and by McNemar's test for categorical variables. A Type I error rate of 0.05 was used for these analyses.

Results

A total of 58 nurses (including RNs, APNs, case managers, and nurse educators), 18 physicians (including FM faculty, community physicians, geriatricians, a physiatrist, and a psychiatrist), 19

Table 1. Comprehensive and Sequential Intervention—Details of Didactic Program

Talk 1: Delirium in older persons: clinical pearls derived from research	
Objectives	Session content
1. To understand the key features for recognition of delirium at the bedside	An overview lecture that introduced delirium. It included cases, definitions, pathophysiology, epidemiology, comparison between delirium versus dementia, risk factors for delirium and precipitating factors such as medications, impact of delirium in terms of clinical outcomes and hospital cost, introduction to the CAM delirium screening tool, delirium management, and introduction to the HELP and its effectiveness.
2. To comprehend the multifactorial etiology of delirium and its leading risk factors	
3. To learn strategies for the prevention and management of delirium	
Talk 2: Recognition of delirium: the Confusion Assessment Method (CAM)	
Objectives	Session content
1. To review the development and validation of the CAM	The lecture went into depth on the CAM instrument. It also included a review of clinical features and significance of delirium identification. CAM development and validation was presented. Much of the lecture was spent on how to use the CAM at the bedside, using examples of each of the four CAM criteria. Clinical cases and videos were used to demonstrate aspects of CAM administration.
2. To understand the key features of the CAM	
3. To learn how to rate the key features of the CAM	
Talk 3: Improving hospital quality and safety: the HELP	
Objectives	Session content
1. To comprehend the perils of hospitalization for older persons	The lecture went into depth on the HELP. Delirium was shown to be a leading complication of hospitalization as well as a quality indicator. A description of the HELP included the six known risk factors targeted by HELP interventions, implementation of the program by trained staff and volunteers, and processes to identify and manage eligible patients. The impact of HELP on hospital cost-effectiveness and impact on clinical outcomes was presented.
2. To gain knowledge about the interventions of the HELP	
3. To review the evidence for effectiveness of the HELP	
Talk 4: How to make HELP happen: creating change	
Objectives	Session content
1. To review the outcomes and cost-effectiveness of a successful large-scale HELP	The lecture reviewed key features of the HELP and demonstrated the role of HELP in community hospitals, using a successful example. A focus was on demonstrating economic viability of HELP to hospital Administration. Tools that can be used to demonstrate HELP success were presented, as were possible metrics to track. In addition, HELP can favorably impact Center for Medicare and Medicaid Services “no-pay” conditions, such as falls.
2. To understand how HELP sites create system change and sustain it	
3. To learn about the impact of HELP on Medicare no-pay conditions, such as falls	

CAM = Confusion Assessment Method; HELP = Hospital Elder Life Program.

trainees (including medical students, FM and surgery residents, and geriatrics fellows), and 24 staff from other departments (including pharmacists, hospital administrators, social workers, volunteers, laboratory personnel, radiology technicians, nutritionists, and physical therapists) attended at least one didactic or small group session. Also, directors from the departments of Pharmacy, Psychiatry, Medical Informatics, Infection Control, Physical Medicine and Rehabilitation, and Laboratory Services and the president and vice-presidents of the hospital attended two or more sessions.

The four didactic lecture sessions were attended by 83, 61, 72, and 69 people, respectively, for an average attendance of 71 per session. Postlecture evaluations were overwhelmingly positive; 79% of the attendees rated the educational activity as excellent and 21% as good. One hundred percent of the attendees felt that the lectures met the stated objectives. A total of 77 pretests and 89 posttests were completed by the attendees. Fifty of these were numerically matched by survey identification numbers (Table 3). Certain responses were lost due to unavailable identification numbers. The 50 matched

Table 2. Outline of the Small Group and Nursing Focus Sessions

Small group sessions
Clinical rounds with the residency team
Interdisciplinary case discussions
Debriefing with the ACE Unit core team
Q&A on CAM & delirium prevention
CNE sessions
Differentiating dementia from delirium
Differentiating depression from delirium
Medication management in elders
Webinar on falls
Financial considerations in elder health care decisions

ACE = Acute Care of Elders; CAM = Confusion Assessment Method; CNE = Continuing Nursing Education.

respondents included 6 physicians (MD/DO), 34 nonphysician clinicians (RN/LPN/etc.), 4 others, and 6 unknown. Eight questions were used in computing the knowledge score. To achieve a maximum score of 17 points, the respondent had to select all correct options and no incorrect ones. Three of the 50 respondents were able to achieve this score on the posttest. Mean pretest and post test scores were 7.9 (*SD*: 2.6) and 10.8 (*SD*: 3.0) for a mean improvement of 2.9 points ($p < .001$).

Responses were further analyzed depending upon the number of didactic sessions attended. Eighteen persons attended a single session (Cohort 1), whereas 32 persons attended two or more sessions (Cohort 2). Interestingly, the results followed a dose-response relationship, wherein, the improvement in knowledge scores was statistically significant in Cohort 2 that attended two or more lectures (3.8 points, $p < .001$) but not so in Cohort 1 that attended only one lecture (1.3 points, $p = .12$).

When asked to assess their confidence in identifying a hospitalized patient with delirium, 26 of the 50 (52%) respondents felt “confident” or “very confident” on the pretest. This number rose to 40 (80%) on the posttest ($p < .001$). Self-assessed capacity of administering the Confusion Assessment Method (CAM) also increased from 14 (28%) on the pretest to 32 (64%) on the posttest ($p < .001$). For both measurements, the confidence in identifying a hospitalized patient with delirium as well as self-assessed capacity to administer the CAM, the difference reached statistical significance with attendance of multiple didactic sessions (Cohort 2) but not with attendance of a single session (Cohort 1).

Small group sessions with the ACE Unit nurses, FM Residents, pharmacists, and nursing coordinators were each attended by 8–15 persons. Participant feedback from these sessions cited the value of these sessions in promoting interdisciplinary dialogue and improving staff confidence around delirium.

Discussion

There is evidence of poor performance in the evaluation and management of geriatric conditions by clinicians, which suggests a need for changing clinician behavior (Levine et al., 2007). Recently, there has been increased interest in finding methods to improve behavior patterns of physicians through models of knowledge translation (Levine et al., 2007; Ward et al., 2002). It is speculated that physician knowledge and attitudes are affected before there is change in clinical behavior and performance

Table 3. Pretest and Posttest Response Analysis

	Total matched responses	Cohort 1 (attended one didactic session)	Cohort 2 (attended two or more sessions)
Respondents (<i>N</i>)	50	18	32
Mean pretest score (Min: 0, Max: 17)	7.9 (<i>SD</i> 2.6)	9 (<i>SD</i> : 2.9)	7.3 (<i>SD</i> : 2.5)
Mean posttest score (Min: 0, Max: 17)	10.8 (<i>SD</i> : 3.0)	10.3 (<i>SD</i> : 2.2)	11.1 (<i>SD</i> : 3.7)
Mean change in score	2.9 ($p < .001$)	1.3 ($p < .12$)	3.8 ($p < .001$)
Range of score on pretest	3.1–15.5	3.8–15.5	3.1–11.4
Range of score on posttest	4.2–17	5.8–13.8	4.2–17
Respondents confident in identifying delirium before intervention, <i>n</i> (%)	26 (52)	9 (50)	17 (53)
Respondents confident in identifying delirium after intervention, <i>n</i> (%)	40 (80) ($p < .001$)	13 (72) ($p < .22$)	27 (84) ($p < .002$)
Respondents with self-assessed capacity to administer the CAM before intervention, <i>n</i> (%)	14 (28)	6 (33)	8 (25)
Respondents with self-assessed capacity to administer the CAM after intervention, <i>n</i> (%)	32 (64) ($p < .001$)	10 (56) ($p < .22$)	22 (69) ($p < .001$)

CAM = Confusion Assessment Method; Max = maximum; Min = minimum.

improvement (Ward et al., 2002). This visiting professorship was designed to raise awareness, to better educate health care providers, and to help create and implement a program to address delirium.

The clinician education program utilized objectively designed pretest and posttest questionnaires to evaluate the impact of the CSI on knowledge among clinicians about delirium identification, diagnosis, and management. Concurrently, changes in the level of confidence and self-assessed capacity to identify a patient with delirium using the CAM were analyzed. It is anticipated that improvement in these parameters would translate into a change in practice and behavior toward delirium in general (Ward et al., 2002). Novel aspects of this educational intervention included the needs assessment identifying a topic recognized as important on a large scale, obtaining administrative buy-in, generating a climate of change across the organization, and creating intensive interaction across disciplines through the intervention.

Overall, our analyses showed improvement in knowledge scores as a result of the intervention. Interestingly, cross-sectional analysis of Cohort 1 (attended one session) versus Cohort 2 (attended two or more sessions) revealed that the mean change in score was significantly higher in Cohort 2, with a p value of $<.001$. Also, three participants, all belonging to Cohort 2, achieved a perfect score of 17 on the posttest. These findings support the concept that a CSI with a multifaceted educational strategy can significantly enhance clinician knowledge around a particular subject in ways that a single-session attendance cannot.

It is noteworthy that the participants in Cohort 1 had a higher mean score on the pretest to begin with than the participants in Cohort 2. This could be attributed to higher baseline knowledge about delirium in this cohort, who thought that they may not benefit from attending more sessions. Also, despite increase in knowledge scores, the overall posttest scores remained low, with a mean posttest score of 10.8 of a maximum of 17 points. This may be attributed partly to our system of subtracting points for incorrect answers.

Another unique aspect of the CSI was the sequential patterning of educational activities. The systematic elucidation of the different facets of delirium through multiple sessions and educational formats (PowerPoint presentations, video clips, and case discussions) resulted in a significant increase in confidence among clinicians in identify-

ing delirium in their hospitalized elderly patients ($p < .001$).

Although the goals of the program were to impact delirium prevention, identification, and management, the benefits of the CSI program extended to a broader context of improving geriatric care in the hospital. For example, it led to buy-in by administration for an expanded Geriatric Programming Agenda, including interest in a new model of care such as the Hospital Elder Life Program (HELP; Inouye, Bogardus, Baker, Leo-Summers, & Cooney, 2000). Furthermore, the CSI program helped to build bridges between hospital departments by focusing on a unifying patient care issue. This paved the way for the Emergency Department (ED) and Information Systems Department to take steps toward devising a novel interpretive cognitive screen and planning an ED delirium identification protocol that could be documented in the electronic medical records.

The CSI program also helped support employees by providing on-site CNE and CME to satisfy nurse and physician educational requirements. As a result of the CSI program, HELP concepts were integrated into periodic ACE Unit education days. Lastly, the large participant response to the didactic sessions coupled with the inherent limitations of the hospital's meeting spaces led to novel use of multimedia to extend the reach of the program.

Several important limitations are worthy of comment. Use of remote locations, while allowing broadcast to a larger audience, prevented direct speaker interaction for some participants. Moreover, several pretest and posttest responses could not be used for analysis because of the lack of accurate matching parameters on the questionnaires. Also, there were no formal prospective evaluation or feedback systems in place for the small group sessions.

Another limitation is that data collection focused on improvements in knowledge rather than behavior change. While beyond the scope of the current study, measuring clinical impact and behavior change would be important for future investigations. Using coding data to identify physician recognition of delirium and pharmacy data to analyze prescribing practices could help to assess the impact on clinical practice.

In summary, the CSI strategy increased clinician knowledge about the characteristics and management of delirium and improved confidence and self-assessed capacity to identify delirium in the hospitalized elderly patients. This strategy, which

incorporates multiple reinforcing modes of education, may be more effective in influencing clinician behavior when compared with traditional grand rounds. Based on the success of this program, the Geriatric Services Core Team plans to continue using the model to disseminate important medical and clinical quality initiatives to interdisciplinary hospital staff. Other institutions may be able to adopt a similar strategy to create change in geriatric care.

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Appendix: Pretest/Posttest Questionnaire

Responses are anonymous. Note that there may be more than one correct answer

1. Delirium: (select all that apply)

- Often has evidence of an underlying medical etiology
- Is not associated with serious complications
- May be preventable in 40% of cases
- Has no significant impact on hospital and 1-year mortality
- Of the hypoactive type is adequately recognized by nurses and physicians

2. Which of the following is/are diagnostic characteristic/s of delirium? *(select all that apply)*
- Acute onset and fluctuating course
 - Inappropriate behavior/agitation
 - Inattention
 - Disorganized thinking
 - Altered level of consciousness
3. The CAM, Confusion Assessment Method: *(select all that apply)*
- Is meant to be administered by psychiatrically trained clinicians
 - Is a sensitive and specific method for detection of delirium
 - Is designed primarily for use in a geriatrician's office
 - Is a widely used tool for clinical as well as research purposes
 - Utilizes a modified MMSE (mini-mental state examination) to assess delirium
4. Neuroimaging (CT/MRI Brain) should be considered as part of delirium assessment: *(select all that apply)*
- As a routine investigation in suspected cases
 - In confirmed alcohol or drug withdrawal cases
 - In the absence of focal neurological signs
 - With evidence of recent falls or head trauma
 - In all patients over the age of 65
5. Strategies proven to reduce delirium among hospitalized elderly are: *(select all that apply)*
- Use of restraints to prevent falls
 - Use of sedatives to induce restful sleep at night
 - Use of vision or hearing aids if necessary
 - Restriction of activity
 - Use of urinary catheters
6. Which medication among the following has the greatest potential to cause delirium in patients above age 65? *(select one)*
- Benadryl
 - Lisinopril
 - Tylenol
 - Ferrous Sulfate
 - Plavix
7. Recommendations for pharmacotherapy in patients with delirium include: *(select all that apply)*
- Haldol as the medication of choice
 - Valium as the medication of choice
 - When agitation may interrupt essential medical therapies
 - When patients pose a safety hazard to themselves or staff
 - When the use of physical restraints has not been successful

8. The primary goals of the Hospital Elder Life Program (HELP) include: *(select all that apply)*
- Assisting in the transportation from home to the hospital
 - Preventing unplanned readmission to the hospital
 - Maximizing independence at discharge from hospital
 - Maintaining physical and cognitive functioning throughout hospitalization
 - Ensuring psychiatric evaluation of the hospitalized elderly
9. How confident are you in identifying a hospitalized patient with delirium?
- Very confident Confident Not confident
10. How would you assess your capability of correctly administering the Confusion Assessment Method to identify patients with delirium?
- Capable Not capable Not sure

Please mark the lectures that you attended:

9/22/09

- 8-9 am: Delirium in Older Persons: Pervasive, Perilous, and Preventable
- 12-1 pm: Recognition of Delirium: Use of the Confusion Assessment Method

9/23/09

- 8-9 am: Improving Hospital Quality and Safety: Hospital Elder Life Program
- 12-1 pm: Strategies for Delirium Prevention: Implementing HELP protocols

Please circle correct option and fill details as appropriate:

- Physician: Attending/Resident/Fellow/Student Specialty: _____
- Non-physician clinician: Please mention License type/Credentials: _____
- Other Participant: Please identify department or position: _____

What percent of your patient population do you estimate to be 65 and over?

- Less than 10% 10% - 24% 25% - 49% 50% or more

How did you learn about this program? _____