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Checkoffs play key role in SICU improvement

Checklist helps team follow care plan

A patient daily goals checkoff form used twice daily during rounds has helped the surgical intensive care unit (SICU) team at Hartford (CT) Hospital achieve a 25% drop in its mortality rate, while cutting lengths of stay and ventilator days.

The 800-bed hospital, a level one trauma center and urban teaching/tertiary care facility, is a major affiliate of the University of Connecticut School of Medicine and one of the original participants in the "Transformation of the ICU," or TICU Project, sponsored by the Veterans Health Administration to help improve the organization and delivery of care to the ICU.

One of the outgrowths of the project was the concept of a goals form for rounds, first employed at Johns Hopkins in Baltimore under the direction of Peter Pronovost, MD.

"It seemed to work there, and they asked if other teams would try it; we took that challenge," recalls **Eric Dobkin**, MD, director of the 12-bed surgical ICU at Hartford.

The hospital actually formed two different teams in the surgical and medical ICUs and came up with two different goals forms.

"We [the SICU] clearly had outstanding outcomes, and I think the main reason for that was the way our form was structured," he says.

The form Hartford uses **(see checklist, p. 114)** differs not only from the original Pronovost model but from many others Dobkin has seen implemented — including some in his own facility. "The real key is that to some extent, the others miss the point," he asserts. "Their focus is to use this as a to-do list, and I'm sure that is very beneficial. However, we chose a different path."

One of the key elements of the TICU project, he notes, is improving patient safety. "We felt [with our form] we could improve quality *and* patient safety," Dobkin says. "That's why some of our questions are attributable to patient safety. They not only reflect the clinical concerns of the patient, but also their safety and psychosocial concerns."

But the key take-home message, he underscores, is that, "We decided to design not just a to-do list, but something modeled after an airplane takeoff checklist." That's why, he says, not only is every item on the list expressed in the form of a question, but each question is designed with a default answer of yes.

The decision on the questions themselves was, like the SICU team, multidisciplinary. The team includes nurses, a physician leader (Dobkin), respiratory therapist, social worker, and midlevel practitioners (nurse practitioner and physician assistant). "We have a multidisciplinary care philosophy in the SICU, and we primarily developed the form by mirroring the way we presented patients on rounds," Dobkin explains.

"We have rounds twice a day, and they had been more or less formalized verbal presentations of the patient, going in systems order — pulmonary, cardiovascular, neurological," he says. "Traditionally, this had been given from the head or from notes. Since we were multidisciplinary, this would include issues around the whole patient. We thought about this and formalized the areas we routinely discussed into questions [for the checkoff]."

Multiple versions of the form were used before the final version was selected. "We asked for input from our nursing staff, so they could incorporate questions they felt were important, too," Dobkin says. His team started with a small "test of change," using one or two patient rooms, then four, then half the unit.

"Each time, the form changed," he notes. The compilation of the questions in their final form was handled by the nurse practitioner, Denise Lawrence.

Communications improved

Dobkin says that one of the additional benefits of this form has been the elimination of a problem he has seen in every ICU in which he has worked. "Every day on rounds, the residents present the patients the same way, by system," he says. "At the end, the resident inevitably says the plan for the day is 'ABC.' Yet, when you ask the nurses, they inevitably will say there is no plan. I

(Continued on page 115)

Key Points

- Unit sees 25% drop in mortality following implementation of new form.
- Checklist not a to-do list, but enumeration of clinical, safety goals.
- All members of the multidisciplinary team are involved in process.

SICU Patient Daily Goals Sheet

Why is the Patient here?	No	Plan : Morning	Revisions: Afternoon	Night
Appropriate level of sedation?				
Appropriate level of pain control?				
HOB elevated 30 degrees?				
Weaning/extubation assessment performed?				
Current vent support needed RWP candidate?				
Tissue perfusion adequate?				
Arrythmias treated/controlled?				
Optimal BP control?				
Volume status appropriate?				
IV fluids appropriate?				
Adequate nutritional support?				
Bowels regular?				
PUD prophylaxis?				
Electrolytes WNL?				
Glucose controlled?				
H/H appropriate?				
Coags appropriate?				
DVT prophylaxis?				
Cultures checked?				
Wounds checked?				
Skin intact?				
Antibiotic appropriate?				
Lines/tubes necessary?				
Tests /procedures ordered?				
Tests read/reviewed?				
Δ meds PO, adjust dosing?				
Consults ordered/contacted?				
Patient mobilized, OT/PT/ST?				
Primary service/consults contacted, plan discussed?				
Team aware of end of life plan?				
Family feels informed?				
Cont. Care/ Soc. Serv involved?				

RN ____ MLP ____ MD ____ RN ____ MLP ____ MD ____ RN___MLP___MD___

Source: Hartford (CT) Hospital.

Need More Information?

For more information, contact:

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don't know if this is a delivery issue or a reception issue; but since we implemented this, we have had total buy-in from the nursing staff."

Dobkin has the data to back up this assertion. At the outset of this program, nurses were provided with blank goals forms after rounds and were asked to write down the plan for their patients. "We found when we measured that the nurses truly did only know about 50% of the goals planned," he points out. "But after we instituted the [checkoff] procedure, they knew 98% to 100%. We have tested this for a year and a half, and it has been consistent."

While there is no baseline for the residents, the current data show that 98% to 100% of them also know their goals every day, Dobkin adds.

It also provides reinforcement for the nurses that this form helps them know the goals for the day, he says. "Nurses feel better organized about their day." And even though it is not the form's primary function, it also *does* function later on as a to-do list for the nurses.

"Plus, it is a communication form," Dobkin explains. "We print it on fluorescent yellow paper, and we put it in clear plastic sleeves on the breakaway door to the ICU, so everyone involved with the case can see it."

Finally, he says, it serves as a safety and quality "force multiplier."

Of course, it is the change in outcomes that is "truly impressive," Dobkin says. The SICU has decreased its mortality rate from about 11.4% to about 8.3% since the checklist began being used, he reports. "We also decreased [average] length of stay by 1½ days and ventilator days on by one day," he adds.

Scientifically, of course, it is impossible to attribute the entire change to the checklist. "However, we have had no change in patient population, no new technology implemented, nor have we been doing any other studies during this time," he asserts. Could other hospitals duplicate Hartford's results? "Yes and no," he says. "This is very low-tech, simple, and cheap to do. The high cost is the commitment by the staff, including physicians, to use it."

The checklist is done for every patient every morning, then revised in the afternoon. Then at night, the resident and the fellow make sure every goal is being followed. "What's necessary is the absolute devotion and leadership by clinical care physicians," Dobkin says. "How did we do it? We have a great team, and I had the support of the director of the section of surgical critical care and chief of surgery."

The nurse practitioner and the physician's assistant also played a crucial support role. "When I was not there, they reminded the others to adhere to the plan," he adds.

Even so, there was resistance in the beginning, both from nurses and physicians. However, notes Dobkin, "they persisted only until they saw the results." ■

Program distinguishes illness from disease

Medical students to 'walk in shoes' of patients

First- and second-year students at the University of Michigan Medical School in Ann Arbor will be getting an unusual look at the processes of disease and illness beginning this fall, when they visit patients in their homes to gain an understanding of how family, environment, culture, and lifestyle all play a part in an individual's health.

It is hoped that through these visits, the students will come to recognize the important distinction between disease and illness that is at the foundation of this innovative program.

"We want to get the students to understand the *experience* of illness," explains **Arno Kumagai**, MD, assistant professor in the department of internal medicine and medical director of the Family-Centered Experience. "There's a fundamental distinction between illness and disease," he notes.

Take a disease like diabetes, he offers. "The disease is an abnormality of how carbohydrates are

Key Points

- Student teams will pay eight home visits in two-year program.
- Topics will examine the impact of disease on patients and their family members.
- First-year med students form beliefs that will last their whole career.