What Are Standardized Clinical Assessment and Management Plans?

A quality improvement platform developed at Boston Children’s Hospital reduces costs and improves patient outcomes without the constraints often associated with standardized medical guidelines. Unlike these guidelines, which may not accommodate the needs of individual patients, this new platform known as Standardized Clinical Assessment and Management Plans (SCAMPs) provides clinicians the flexibility to deviate from recommendations as long as they document the rationale. These deviations or practice outliers are tracked and analyzed, and eventually used to update the SCAMPs platform itself.1,2

Each SCAMP establishes a standard care pathway for a diverse patient population with a particular condition such as chest pain or high cholesterol. Recommendations regarding medical management are structured as decision trees that provide guidance for decision making.1 The SCAMP collects data about the patient including testing, treatment pathways, and outcomes—along with any treatment diversions and the reasons behind those decisions—through a review of electronic health records combined with a paper form completed by the clinician.1

“The SCAMPs platform may be applied to virtually any type of medical condition,” explained Michael Farias, MD, MBA, first author of an article on SCAMPs published in the May 2013 issue of Health Affairs. According to Farias, there are two SCAMPs that have been developed featuring the input and expertise of registered dietitian nutritionists (RDNs): the Nutrition SCAMP in Cardiology, which manages optimizing weight gain in children with congenital heart disease; and the Lipid Management SCAMP in Cardiology and in Pediatric Primary Care that features dietary recommendations for children with high cholesterol.

“In my idealist view, this platform has such broad applicability,” added Farias, a senior resident in pediatrics in the Boston Combined Residency Program at Boston Children’s Hospital and Boston Medical Center. “I see SCAMPs playing a role in so many aspects of what we do in medicine. Everyone from RDNs to nurse practitioners to surgeons will have a role in this platform, and that is the case right now, incidentally, at Boston Children’s. The nice thing about SCAMPs is that you can be involved as much or as little as you prefer. An RDN may simply use a SCAMP, or they might decide to take a lead in developing it.”

This article provides an overview of the RDN’s potential role in the SCAMPs platform, explains the three aims of successful SCAMPs programs, and offers details on future directions of the initiative.

SCAMPs and Clinical Practice Guidelines (CPG): A Comparison

According to Farias and Rahul H. Rathod, MD, a coauthor of the Health Affairs article and a staff cardiologist at Boston Children’s Hospital, there are two fundamental ways SCAMPs differ from tradition CPGs and other standards: flexibility and a rapid improvement cycle.

“Most guidelines or standards are formed by critical committees of various medical societies or some other body of experts, and that process can be arduous because it requires literature review and consensus,” said Farias. “We simplify that process by bringing it to a group of providers who work together—and the advantage of that is that it is still based in evidence, but it allows you to have flexibility, as physicians can deviate from the guidelines when they want to practice the way they prefer given the situation.”

“We collect these diversions and we analyze them frequently,” said Rathod. “In looking at the data, we can say ‘Hey, this is where the SCAMP was right, and here is how it could be better.’ For the [revision] of a typical CPG it can take 5 years. In 5 years, we go can go through as many as 10 iterations of a SCAMP.”

“SCAMPs with a high volume of patients gather data more quickly,” added Farias. “But for more obscure conditions and diseases, ones with a fewer number of patients, you have to wait 1+ years to make a meaningful change to the SCAMP. Ideally, a typical SCAMP revision cycle is 9 to 12 months.”

“SCAMPs won’t replace CPGs,” explained Rathod. “SCAMPs are simply another tool in the belt—a complement to existing standards and guidelines.”

Institutions Participating in SCAMPs as of August 2013

Baylor Health Care System (Dallas, TX)
Baystate Medical Center (Springfield, MA)
Boston Children’s Hospital (Boston, MA)
Boston Medical Center (Boston, MA)
Brigham and Women’s Hospital (Boston, MA)
Child Heart Associates (Worcester, MA)
Children’s Hospital of Wisconsin (Milwaukee, WI)
Children’s National Medical Center (Washington, DC)
Connecticut Children’s Medical Center (Hartford, CT)
Dartmouth-Hitchcock Medical Center (Manchester, NH)
Harvard Vanguard Medical Associates (Boston, MA)
Hasbro Children’s Hospital (Providence, RI)
Lancaster General Hospital (Lancaster, PA)
Maine Medical Center (Portland, ME)
Massachusetts General Hospital (Boston, MA)
Pediatric Endocrine Society University of Massachusetts Medical Center (Worcester, MA)
University of Vermont Medical Center (Burlington, VT)

This article was written by Tony Peregrin, editor and writer for a Chicago-based medical association and freelance writer in Chicago, IL. 

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At present, 49 different SCAMPs have been initiated at Boston Children’s and other hospitals, and have involved more than 12,000 patients ranging from common outpatient presentations to advanced surgical procedures.3

THE ROLE OF THE RDN IN SCAMPs

The Academy of Nutrition and Dietetics has developed nutrition guidelines to assist practitioners and educators, including several evidence-based tools such as the medical nutrition therapy protocols that define the level, content, and frequency of nutrition care appropriate for a disease or condition.4 “We already have many of the same pieces of the SCAMP program,” explained Sharon M. McCauley, MS, MBA, RDN, LDN, FADA, director of the Academy’s Quality Management department. “But what I think is especially interesting is that these SCAMPs programs are all about transdisciplinary teams, and RDNs have an opportunity to step up to the plate and take a leadership role on these teams. As a first step, RDNs should be able to translate the Academy’s evidence-based practice guidelines into assessment tools and then use these tools in determining if the care they have provided conforms to the guidelines.” Quality Management provides performance improvement tools and resources for measuring quality.5

S. Skylar Griggs, MS, RD, LDN, clinical nutrition specialist, Preventive Cardiology, Boston Children’s Hospital, is one of the first RDNs to contribute to SCAMPs. “I am working with a team of cardiologists, and it’s great to have that scientific background—but you know the nutrition piece and that’s just as important. There is a great marriage between the scientific background of the cardiologists I work with, and my own clinical nutrition knowledge,” said Griggs. “It’s important to put yourself forth as the nutrition expert.”

Sarah de Ferranti, MD, MPH, director, Preventive Cardiology, Boston Children’s Hospital, said Griggs and other RDNs contributing to SCAMPs development are an integral part of the process because they help cardiologists connect nutrition behavior to outcomes. “Clinical guidelines take a while to write, and in the meantime care is evolving. The SCAMPs—including those with RDN input—are designed to allow the practitioner to review what pathways are available now,” said de Ferranti. “Ten years ago, for example, low fat was in, but now evidence suggests that for some patients, that might not be the right approach. The SCAMP can be revised over time to respond to new research findings. The SCAMP also allows me to modify care based on what I know about the patient.”

“The great thing about the SCAMP is the variety. If you like to be creative, you can, for example, focus on handouts,” said Griggs about her role in SCAMPs development. “If you like the numbers and research, you can work on that; if you are clinical, you might choose to comb through the scientific research—but give yourself the freedom to see where you flourish,” advised Griggs, who compiled evidence-based recommendations on various lipid values (high low-density lipoprotein cholesterol vs high triglycerides, vs low high-density lipoprotein cholesterol) for the Lipid Management SCAMPs in Cardiology. “The recommendations could be used either by the dietitians themselves or by the medical practitioner who is using the SCAMP in their clinic and has a patient with high values and can’t get to the dietitian immediately,” she said.

THREE GOALS OF SCAMPs

“A SCAMP can be written on virtually any condition, but the best SCAMPs have high stakes in three specific areas: cost reduction, reduced practice variation, and improved outcomes,” explained Rathod. He and his coauthors note that “the great degree of variability in US medical practice leads to higher costs without measurable differences in outcomes,” a situation that cannot continue as health care reform, with its emphasis on reduced health care costs, continues to evolve.1,6

In a press release issued by Boston Children’s Hospital, the SCAMPs team outlined positive results in the three SCAMP goal areas for six pediatric conditions, including the following1:

1. Cost Reduction In the Boston Children’s Cardiovascular Program, SCAMPs have reduced the average cost of an episode of care by 20% for chest pain, 11% for patients after the arterial switch operation, 20% for hypertrophic cardiomyopathy, 30% for aortic regurgitation, and 51% for aortic stenosis in clinic. In addition, SCAMPs are projected to reduce the average cost of caring for aortic stenosis in the catheterization laboratory by 33% during a 10-year episode of care. Overall, for these six conditions, costs were reduced by an estimated 27%, at

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Eight steps for starting a SCAMP around a medical condition

1. Review the literature about the disorder and prior patient experience to establish a background position paper as a starting point.
2. Obtain consensus on which patients to include in the SCAMP, how they will be assessed, and the starting algorithm for managing them.
3. Formulate “plausible findings” reflecting what the group hopes to learn about managing the disorder.
4. Develop data forms and electronic tools to capture information as the SCAMP is implemented.
5. Pilot the SCAMP at a few sites, enrolling the appropriate patients.
6. Via the clinician and a data coordinator, gather targeted clinical data including information from patient medical records, any divergence from existing care plans, and the reasons for the divergence.
7. After a predetermined interval (generally 6 to 12 months, or after 200 patients are enrolled), analyze the SCAMP data and divergences from practice guidelines.
8. Based on the analysis and updates in the literature, iteratively modify and improve the SCAMP, subsequently tracking the outcomes.

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an estimated $702,000 savings, when compared with the same condition pre-SCAMPs.

2. Reduced Practice Variation
When a recommended practice was refined through a SCAMP, clinicians were more likely to follow it. For example, a SCAMP for patients with a dilated aortic root examined the recommended practice of referring patients to a geneticist, and found that many referral visits were not yielding significant new information. When the criteria for referral were tightened, adherence to the recommendation went from 19.6% to 75%.

3. Improved Outcomes
When a SCAMP was initiated for balloon valvuloplasty for congenital aortic stenosis, the frequency of “ideal” outcomes increased from 40% to 69%, whereas the frequency of “inadequate” results decreased from 30% to 9%.

IMPLEMENTING SCAMPs
Nearly 20 health care facilities now collect SCAMPs data, including Boston Children’s Hospital; Brigham and Women’s Hospital, Boston, MA; and Children’s National Medical Center, Washington, DC, and it is anticipated that more institutions will join the SCAMPs network. A survey of 69 individual providers revealed that 36% found it “easy to incorporate SCAMPs into the workflow of their practice” and “an additional 34% felt that this task was neither easy nor difficult.” A total of 38% indicated that the SCAMPs did not change the average length of a clinic visit, and 32% said SCAMPs added 5 minutes or less to the time they spend on each patient visit.

“When you first roll out a SCAMP it’s time-adding because it takes time to learn it and become familiar with how to follow the management algorithms,” admitted Farias. “But in the end, the SCAMP is a time saver—when you have a physician or a clinician who has some uncertainty, the SCAMP will give you a consensus of how other providers are handling that situation.”

Implementing a SCAMP at an institution (SCAMPs for individual practitioners in private practice are not currently available) involves a certain degree of cultural change, and establishing acceptance and trust early on in the roll-out process are key to its success.

“When some physicians first hear about it, they might feel like they have to follow a SCAMP to the ‘T’ or there will be repercussions. Or they get mad because they feel like they are being told what to do,” said de Ferranti. “However, everyone is allowed to make their own decisions when using a SCAMP—they simply have to write down why they’ve deviated from it. The key is to trust your own judgment and to remember that no set of information or guidelines is perfect.”

“CPGs have a top-down structure meaning the organization sets the series of guidelines, while a SCAMP is more of a grassroots effort because the
people who write the SCAMPs are in the clinics doing the actual work,” added Rathod. “When we show an organization data not from 5 years ago, but results that are more immediate it helps reinforce why they did this—selected a SCAMP—in the first place. There are very few times in medicine when we get feedback that fast.”

FUTURE DIRECTIONS
SCAMPs developers view the platform as a flexible tool that promotes standardization of care while accommodating for patients’ differences and respecting the providers’ clinical acumen. As for SCAMPs next iteration, Rathod envisions a “network role” for the platform composed of institutions eager to be “engines of change.” “I see us expanding and creating an organic network that allows these SCAMPs, particularly the good SCAMPs, to spread across the network,” he said.

Several health care stakeholders throughout the United States have already endorsed the implementation of SCAMPs, including insurance companies who, according to Farias and Rathod, recognize the use of SCAMPs, including insurance companies who, according to Farias and Rathod, recognize the use of SCAMPs, as a methodology for minimizing unnecessary care while improving quality of care. “For future iterations, we envision collaborating with payers and insurance companies regarding how physicians are being compensated,” said Farias. “Providers, including RDNs, can help determine the value of the care we are providing on this platform.” A consortium of Massachusetts payers, including Blue Cross Blue Shield of Massachusetts, Tufts Health Plan, Harvard Pilgrim Health Care, and MassHealth, provided early and important funding for SCAMPs through the Payer-Provider Quality Initiative at Boston Children’s Hospital.1

As previously mentioned, the SCAMPs platform network is geared toward institutions rather than individual practitioners, but SCAMPs leaders anticipate that changing in the future. A first step in that evolution is the creation of a web portal, according to Rathod, that will allow anyone to have access to publically released material. The SCAMPs team is also currently developing a web-based data collection tool that will ideally transform the platform into a paperless tool. Paper-based data collection and documentation are feasible, and for many organizations may be the best approach due to a lack of technological infrastructure. However, SCAMPs developers suggest that an information technology solution is critical for any large-scale SCAMP deployment with a system that would be exportable to other centers and scalable for multisite deployment.3

As for more immediate changes in SCAMPs development, one lesson practitioners have already learned is to build a SCAMP around a manageable problem. “There is an inpatient nutrition SCAMP that is focused on the nutrition of tiny babies with problems feeding, with an emphasis on increasing calories—a very important SCAMP,” explained de Ferranti. “But when we took a closer look at the situation, we realized there were a hundred different ways a baby could not grow. This was a learning point for us, because when you are thinking about a SCAMP, it’s important to pick a problem that is manageable. If it’s too big, you might end up doing better by having a number of different SCAMPs.”

At press time, 24 new SCAMPs are in development for conditions ranging from management of gastroesophageal reflux to postoperative neurosurgery.1

References