SCAMPS

Standardized Clinical Assessment And Management Plans
Outline

• 1- What is SCAMPs (definition and historical)
• 2- Reasons for developing SCAMPs
• 3- Eight Steps Process of SCAMPs
• 4- Accepted Management of Aortic Valve Stenosis
• 5- SCAMPs for Aortic Valve Stenosis

1-What is SCAMPs ?
(definition and historical)
What are SCAMPS?

- Standardized Clinical Assessment & Management Plan

- It is a quality improvement (QI) tool

- Framework for clinical care in order to better understand uncommon or rare diseases

Difference to other QI tools

- One distinguishing feature of the SCAMPS process compared to other tools is active invitation and capturing of knowledge-based clinician deviations from the standard management plans, which are perceived to be a rich source of information and innovation

- Based upon periodic review of the collected data and deviations, a SCAMP undergoes iterative and progressive improvement of its care-delivery algorithm

http://www.scamps.org/
What are SCAMPS?

- It is designed to fill gaps in knowledge
- This could lead to potential improvements in quality and value of patient care

Historical

2009

First SCAMPs were conceived, designed, and implemented by physician and nursing leaders of the Cardiovascular Program at Boston Children's Hospital in 2009, with early support from other pediatric cardiologists

*Health Affairs* 32, no.5 (2013):911-920
SCAMPS historical

Since early 2009

> 12,000 pts have been enrolled

in

49 SCAMPs

in nine states and Washington, D.C.

Examples after introducing SCAMPS?

1- a SCAMP was credited with increasing clinicians’ rate of compliance with a recommended specialist referral for children from 19.6 percent to 75 percent.

2- SCAMPs were associated with an 11–51 percent decrease in total medical expenses for six conditions when compared with a historical cohort.
2- Reasons for developing SCAMPs

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Standardized Clinical Assessment And Management Plans (SCAMPs) Provide A Better Alternative To Clinical Practice Guidelines

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Reasons for developing SCAMPs…

“Variability in medical practice … leads to higher costs without achieving better patient outcomes. Clinical Practice Guidelines, which are intended to reduce variation and improve care, have several drawbacks that limit the extent of buy-in by clinicians. “ 

Why introduce SCAMPS?

SCAMPs offer a clinician-designed approach to promoting care standardization that accommodates patients’ individual differences, respects providers’ clinical acumen, and keeps pace with the rapid growth of medical knowledge.
Three **maxims** of SCAMPS!

- To provide cost-effective care, you need reliable, relevant clinical data you can act on.
- Progress can be made even if the data aren’t bullet-proof.
- Changes in care based on the data are **never** final.

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**Goals of SCAMPs**

Three Interconnected Aims:

1. Reduce practice variation
2. Optimize resource use
3. Improve patient care

*Health Aff (Millwood). Author manuscript; available in PMC 2014 April 18.*
3- Eight Steps Process of SCAMPS

Process of SCAMPS

- [Re] Design
  - Development of SCAMPS documents

- Analysis
  - Review Data and Analyze Outcomes

- Pilot
  - Test of SCAMP in clinical setting

- Production
  - Formal Data Collection

http://www.scamps.org/
Process of SCAMP

• Development of SCAMP is carried out by a multi-disciplinary group of physician and nursing experts. It can be summarized by the following:

• Eight-step process

Step 1 Process
SCAMPS

• Establish a foundation for sound clinical practice through literature review to compose a background position paper on a particular disorder and, if necessary, conduct a focused retrospective study to analyze current practice.
Step 2  Process SCAMPS

• Formulate Targeted Data Statements that address known gaps in knowledge regarding the management of the disorder; these become the focus of targeted data collection

http://www.scamps.org/

Step 3  Process SCAMPS

• Build expert consensus on the entry criteria, assessment recommendations, and management algorithms (decision trees) for the SCAMP

http://www.scamps.org/
Step 4 Process SCAMPS

- Develop data forms and IT tools that facilitate implementation of the SCAMP by providing management recommendations, in addition to collecting targeted clinical information and reasons for clinician diversions.

http://www.scamps.org/

Step 5 Process SCAMPS

- Enroll patients in the SCAMP, which requires both proper identification of eligible patients and supplying the necessary data forms to providers at the level of the patient encounter.

http://www.scamps.org/
Step 6 Process SCAMPS

• Enter targeted clinical data (collected from data forms and extracted from the electronic medical record) and reasons for clinician diversions into a database

http://www.scamps.org/

Step 7 Process SCAMPS

• Analyze SCAMP data and diversions using statistical approaches along with best clinical judgment, to assess the clinical and cost-effectiveness of recommendations

http://www.scamps.org/
Step 8 Process SCAMPS

- Periodically and iteratively revise the SCAMP based on this analysis and relevant updates from the medical literature

http://www.scamps.org/

4- Accepted Management of Aortic Valve Stenosis
Background:
BAVP constitutes first-line therapy for congenital aortic stenosis (cAS) in many centers

Objective:
Describe contemporary outcomes of balloon aortic valvuloplasty (BAVP) performed in 22 US centers
Methods:
Data from two multi-institutional, pediatric cardiac catheterization registries. **Definition of procedural success:** residual peak systolic gradient 35 mm Hg + no more than mild aortic regurgitation (AR) for patients with **isolated cAS**

Patients with **mixed aortic valve** disease, a residual peak systolic gradient 35 mm Hg without worsening of AR

Results:
N= 373 pts; median age of 8 months (1 d – 40 yrs)
Peak systolic gradient; median 59 mm Hg pre-BAVP and 22 [15, 30] mm Hg post-BAVP (P< 0.001).
Procedural success in 160 patients (71%)
**Results:**

The factors independently associated with procedural success were: first time intervention (OR 52.0 (1.0, 4.0) P ≤ 0.04), not-prostaglandin dependent, (OR = 3.5 (1.5, 8.1); P ≤ 0.003), and isolated cAS (absence of AR) (OR 52.1 (1.1–3.9); P ≤ 0.03). Twenty percent of patients experienced adverse events, half of which were of high severity. There was no procedural mortality. Neonatal status was the only factor associated with increased risk of high severity adverse events (OR 3.7; 95% CI 1.5–9.0).

**Conclusion:** In the current era, BAVP results in procedural success (gradient reduction with minimal increase in AR) in 71% of patients treated at US centers where BAVP is considered first-line therapy relative to surgery.
Balloon Valvuloplasty for Congenital Aortic Stenosis:
Multi-Center Safety and Efficacy Outcome Assessment

TABLE V. Summary of Adverse Event Severity, Preventability,
and Timing

<table>
<thead>
<tr>
<th>Severity</th>
<th>All adverse events (n = 53)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—none</td>
<td>5 (9%)</td>
</tr>
<tr>
<td>2—minor</td>
<td>25 (47%)</td>
</tr>
<tr>
<td>3—moderate</td>
<td>11 (21%)</td>
</tr>
<tr>
<td>4—major</td>
<td>12 (23%)</td>
</tr>
<tr>
<td>5—catastrophic</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

Preventability
- Preventable: 5 (10%)
- Possibly preventable: 17 (32%)
- Not preventable: 31 (58%)

Timing of Identification
- After catheters inserted, before removal: 39 (74%)

5- SCAMPs for Aortic Valve Stenosis

Torres A et al. 2015
Cathet Cardiovasc Interv 86 808
Aortic Valve Stenosis: Articles from Boston Children's Hospital

http://www.expertscape.com/ar/aortic+valve+stenosis/i/boston_childrens_hospital

ORIGINAL ARTICLE

Acute Outcomes after Introduction of a Standardized Clinical Assessment and Management Plan (SCAMP) for Balloon Aortic Valvuloplasty in Congenital Aortic Stenosis

Porras D et. al. 2014
Congenit Heart Dis. 2014; 9: 3
**Introduction**

Standardization of care can reduce practice variation, optimize resource utilization, and improve clinical outcomes. We have created a standardized clinical assessment and management plan (SCAMP) for patients having balloon aortic valvuloplasty (BAV) for congenital aortic stenosis (AS). This study compares acute outcomes of BAV at our institution before and after introduction of this SCAMP.

*Congenit Heart Dis. 2014;9:316–325*

**Methods**

In this retrospective matched cohort study, each SCAMP patient was matched to four historical controls. Outcomes were categorized based on the combination of residual AS and aortic regurgitation (AR) as: (1) **Optimal**: gradient ≤35 mm Hg and trivial or no AR; (2) **Adequate**: gradient ≤35 mm Hg and mild AR; (3) **Inadequate**: gradient >35 mm Hg and/or moderate or severe AR.

*Congenit Heart Dis. 2014;9:316–325*
Results

All 23 SCAMP patients achieved a residual AS gradient ≤35 mm Hg; the median residual AS gradient for the SCAMP group was lower (25 [10–35] mm Hg) than in matched controls (30 [0–65] mm Hg; \( P = 0.005 \)). The two groups did not differ with regard to degree of AR grade after BAV. Compared with controls, SCAMP patients were more likely to have an optimal result and less likely to have an inadequate result (52% vs. 34% and 17% vs. 45%, respectively; \( P = 0.02 \)).
Summary:

A SCAMP for BAV resulted in optimal acute results in half of the initial 23 patients enrolled, and outcomes in this group were better than those of matched historical controls. Whether these improved acute outcomes translate into better long-term outcomes for this patient population remains to be seen.
6- Conclusions

Conclusions

Use of a standardized methodology for BAV since implementation of this SCAMP leads to improved composite acute outcomes as compared with matched historical controls.

Innovative tools such as SCAMPs should be carefully examined by policy makers searching for methods to promote the delivery of high-quality, cost-effective care.

Whether these improved acute outcomes translate into