

## Structured Interprofessional Bedside Rounding (SIBR) Toolkit University of Washington

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## I. Executive Summary

Structured Interprofessional Bedside Rounds (SIBR) is a model of inpatient care organization in which different professions (e.g. nursing, medicine, and pharmacy) come together at the patient's bedside and utilize a consistent format (structure) to collaboratively arrive at a plan of care for each patient. This executive summary provides an overview of SIBR and the contents of an accompanying SIBR Toolkit.

The SIBR Toolkit has been developed as a resource for those interested in learning more about SIBR including those considering implementing SIBR. The following pages contain information about SIBR basics, implementing SIBR, and sustaining SIBR.



### SIBR Overview

There is a growing body of evidence associating utilization of a SIBR approach with improvements in patient care and safety including in patient health outcomes, clinical process or efficiency outcomes, and collaborative behavioral outcomes (e.g. team communication and relationships) (Gonzalo, et al, 2014; Beard, G. et al, 2017; Reeves et al, 2017; Walton et al, 2016; Bhamidipati et al, 2016; Mercedes et al, 2016; Pannick et al, 2015).

At the University of Washington Medical Center (UWMC) the first intentional SIBR implementation occurred in 2013 on the Medicine Services. Shortly thereafter, in 2014, an Academic Practice Partnership between faculty and staff from the UW School of Nursing, UW Center for Health Sciences Interprofessional Education, Research, and Practice (CHSIE), and UW WWAMI Institute for Simulation and Healthcare (WISH) received federal grant funding from Health Resources and Services Administration (HRSA) to implement and evaluate a SIBR model with two Advanced Heart Failure inpatient cardiology units. As of Spring 2018, over ten services/units have implemented SIBR and others are in various stages of considering and/or implementing SIBR. An institutional SIBR Steering Committee has been established and representatives from each unit that has implemented SIBR participates in the monthly meetings. The Committee acts as a resource for scaling-up SIBR at UWMC and for the UW Medicine System.

### SIBR Toolkit

Each of the services/units that have implemented SIBR at UWMC has taken a slightly different approach based on their reason for implementing SIBR, their stakeholders, organizational structures, and resources to support implementation and evaluation. This Toolkit includes resources and our recommendations for best practices for implementing, evaluating, and sustaining SIBR and is divided into four sections. We hope that this Toolkit will provide a useful resource for those interested in SIBR both within and outside the University of Washington system.

### Want to know more? Please contact any of the individuals below.

- *Thinking about starting SIBR at the University of Washington Medical Center (UWMC)?* Please contact Sherri Del Bene [delbene@uw.edu](mailto:delbene@uw.edu)
- *Wanting to know more about SIBR but can't access the UWMC website?* Please contact Brenda Zierler [brendaz@uw.edu](mailto:brendaz@uw.edu) at the UW Center for Health Sciences Interprofessional Education, Research, and Practice

## II. Structured Interprofessional Bedside Rounds (SIBR) Basics

### A. Elements of SIBR

**Definition:** Structured interprofessional bedside rounds (SIBR) brings different disciplines together at the patient’s bedside and uses a structured format to collaboratively arrive at a plan of care for each patient.

#### Universal (UWMC) SIBR elements:

- Structured process-- a predetermined process has been identified that includes speaking roles, order of presentation, and suggested content (e.g. overnight events, data review).
- Interprofessional team-- representatives of multiple professions/disciplines of health professionals participate (e.g. physician, nurse, and pharmacist).
- Performed at the bedside (if permitted by patient and/or family or caregiver)-- as opposed to outside the patient’s room in the hall or in a conference room.
- Rounds-- review of patient data that results in the formulation of a plan of care for the day and beyond with input from the entire team (including the patient/family members).

### B. Evidence for SIBR

#### Summary of Evidence about SIBR from the Literature:

Structured Interprofessional Bedside Rounds (SIBR) is an approach to bedside rounds that was developed to bring together different disciplines to share information using a consistent format/structure to collaboratively arrive at a plan of care at the patient’s bedside (Burdick, 2017; Gonzalo, 2014). There is a growing body of evidence associating SIBR rounds with improvements in patient care and safety including patient health outcomes, clinical process or efficiency outcomes, and collaborative behavioral outcomes (Reeves et al, 2017; Walton, 2016; Bhamiditpati, 2016; Mercedes et al, 2016; Pannick et al, 2015; Gonzalo, 2014). The table below summarizes a review of reviews about SIBR. More details about the methodology used and the included reviews can be found here:

<https://docs.google.com/document/d/1lhxS-IuiqC1ZDdIpLwnjVC2oXcUIPtItWel6h2oQOeo/edit?usp=sharing>

	Reviews Added Evidence in this Area
<b>Patient Health Outcomes</b>	
Functional Status	
Patient Assessed Quality of Life	#4,
Morbidity, Mortality, or Complication Rates	#3*, #5, #7*, #8*

<b>Clinical Process or Efficiency Outcomes</b>	
Adherence to Recommended Practices (i.e. prescriptions, pathways)	#2, #3*, #7*
Continuity of Care	#2, #7*, #8*
Use of Healthcare Resources (i.e. LOS, costs)	#1, #2, #3*, #4, #7*, #8*, #9*
<b>Collaborative Behavioral Outcomes</b>	
Collaborative working; team communication; team co-ordination	#2, #3*, #5, #6, #7, #8

Asterisk (\*) indicates discussed but evidence not clear (go to review for more information)

Research into SIBR effectiveness is an area of increasing interest in team-based clinical practice transformation. A recent study among a small sample of patients/families found that team communication rated more highly among teams that used a SIBR approach compared to those that did not (Beard et al, 2017). An additional literature review (beyond the above described “review of reviews”) would likely provide additional evidence to support SIBR in a number of domains.

The UWMC Experience:

*Advanced Heart Failure Care Teams (2014-present)*

Since receiving federal grant funding in 2014, members of the UW School of Nursing/Center for Health Sciences Interprofessional Education, Research, and Practice (CHSIE) have been working collaboratively with UWMC practice partners (in an Academic Practice Partnership) to implement a SIBR model with two Advanced Heart Failure Service inpatient cardiology units. The goals of the effort has been to improve AHF interprofessional care team communication and relationships, clinical process/efficiency, and patient health outcomes.

A systematic approach was used to adapt and implement the SIBR model, including facilitation, coaching, data feedback to facilitate small tests of change, ongoing consultation, and leadership development. The project for the cardiology AHF teams started with formation of an interprofessional Change Team from participating units. Change and grant team members collaborated to adapt and implement the SIBR model. Beginning in 2015, all healthcare team members participated in team training utilizing TeamSTEPPS concepts and SIBR simulation. SIBR was then implemented in a small pilot allowing for feedback and process improvement prior to full implementation.

A newly formed AHF unit was formed in 2015, and all healthcare team members were able to participate in TeamSTEPPS training and SIBR simulation prior to the opening of this unit. For both units, mixed methods data collection, including annual validated team surveys (i.e. Relational Coordination (RC) Survey) and direct observations of rounds were used to assess effectiveness. Both units also track data on a daily basis and provided avenues for feedback for team members.

Statistically significant improvements were demonstrated between baseline and follow up for each of the RC Survey's seven dimensions (e.g. Timely Communication, Mutual Respect). Direct observations of rounds (n=643) identified increases in both nurse participation (21% vs. >75%) and frequency of in-room rounds (15% vs. 93%). In the spring 2017 survey of care team members, the percentages reporting added value from SIBR in the following domains were: a) team member work role (86%), b) patients (93%), c) family members/caregivers (94%) and d) the interprofessional care team (92%).

### **C. Starting SIBR**

*This section is currently being worked on and will be up as soon as possible. Examples below are topics that will be addressed and are aligned with the Kotter Model of Change.*

- a. Create a sense of urgency (the why)
- b. Identify the right stakeholders at the beginning
- c. Forming a change team
  - Define team agreements and guiding principles
  - Identify roles and responsibilities for team members
- d. Buy-in versus ownership
- e. How to address resistors
- f. Identify resources needed (e.g., training, individuals for change team, data collection, meeting time)
- g. Define project goals and objectives

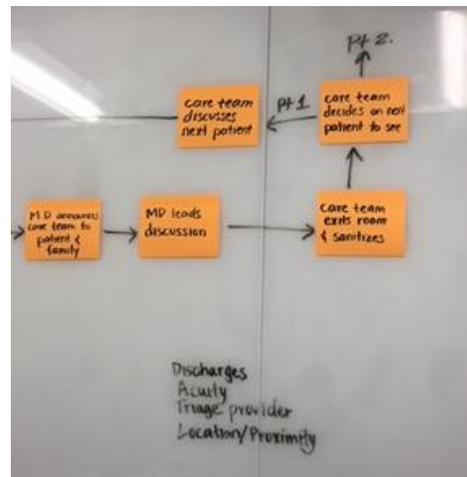
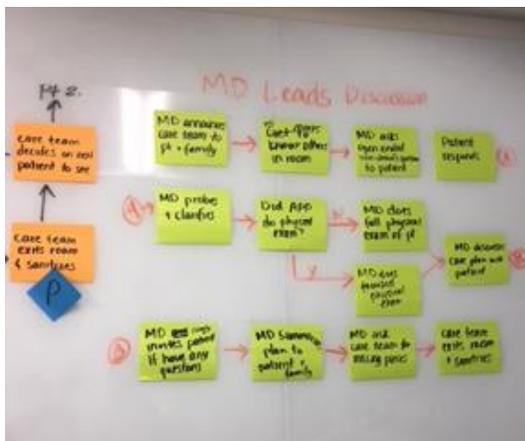
### III. Implementation of SIBR

#### A. Current state assessment

Before implementing SIBR, your team will need to understand what the current rounding process looks like on your unit, and define what the problem and/or challenge SIBR would be helping to solve. Begin by documenting characteristics of the current rounding process so you can track your progress over time. Outlined below are a few variables to consider tracking to help define your current rounding process.

- Average start/end time of rounds (what variables affect this?)
- Location of rounds (e.g., bedside, in the hallway, conference room)
- Team members consistently present for rounds
- Team members consistently contributing to rounds
- Process for calling the RN established?
- Process for creating a rounding order established?

Once your rounding process is outlined, spend time visually mapping out the current rounding process on your unit. The photos below were mapped out by the UWMC Platinum Oncology change team spring of 2018.



\*UWMC Platinum Oncology Change Team – flow mapping exercise

Another important factor in understanding your current state assessment is to outline working relationships on your unit. A visual way to do this is through a process called “Relational Coordination Mapping”. Relational Coordination (RC) is a theory of organizational performance which proposes that highly interdependent work is most effectively coordinated by frontline workers with each other, their customers and their leaders, through relationships of shared goals, shared knowledge and mutual respect, supported by frequent, timely, accurate, and problem-solving communication. RC is also a validated measure to assess the communication and relationship dynamics between workgroups, organizations, and individuals, which can be visually portrayed through a mapping exercise. Instructions for Relational Coordination mapping can be found [here](#), and the photos below provide an example of what the exercise will look like when it is completed.



The information that is most commonly collected in daily tracking has been:

1. Date
2. Attending on service on the date of SIBR
3. Census on service (on a daily basis)-- this provides a denominator
4. Whether the rounding team contacted the RN for each patient on that service (to notify as to when they will be rounding on that nurse's patient)
5. Whether the RN was present during rounds for each individual patient
6. Start time of rounds (what about end-time for SIBR)?

These pieces of information are then used to calculate (using an Excel dashboard) the summaries below on a daily, weekly, monthly or longer term basis.

1. % of time team contacted RN
2. % of RN's attending rounds
3. Start time of rounds

### **III. Team surveys (TPQ, RC, SOS):**

Surveys to gather perceptions of frontline care team members can be very useful to establish a baseline as well as track change over time. We have utilized annual surveys to collect information about team communication, relationships, care efficiency/quality, satisfaction with SIBR and related topic areas. The surveys that we have used included:

- 1) Relational Coordination Survey (RC): <https://rcrc.brandeis.edu/survey/validation-and-survey-items.html>
- 2) TeamSTEPPS Team Perception Questionnaire (TPQ): <https://www.ahrq.gov/teamstepps/instructor/reference/teampercept.html>
- 3) Safety Organizing Scale (SOS): <https://nexusipe.org/advancing/assessment-evaluation/safety-organizing-scale-sos> <https://www.ncbi.nlm.nih.gov/pubmed/17279020>
- 4) We have also developed questions specific to our experience and from reading the SIBR and interprofessional collaborative practice/team-based practice transformation literature. These questions are available upon request.

Each of the surveys above have different strengths, weaknesses, and resource requirements for using them. There is a great deal of literature describing the validation and uses of these surveys in a variety of settings. We encourage the use of these or other validated surveys on an annual basis to be able to track change in team communication and relationships over time.

We have found that using the complete Relational Coordination survey along with 1-2 questions from the Safety Organizing Scale and 5-7 site-developed questions to be the most useful (and also parsimonious) approach to our annual team surveys.

It is important to keep in mind that information gathered from surveys can be very useful but will also be very resource intensive from both human resources as well as financial perspectives so you will need to plan and allocate resources accordingly.

From the human resources side you will need to:

1. Identify which surveys and any additional questions are most appropriate to the questions that you are asking,
2. Determine the method through which the survey will be delivered (e.g. online via Redcap or other survey management tool)
3. Identify your survey respondents (and collect their email addresses if you want to be able to link to individual names and responses over time)
4. Determine timing of the survey (we have found that there are many surveys of different stakeholders at different points in the year it is best to check with the different groups and identify a relative “lull” in surveys to try to avoid survey fatigue and confusion); we typically keep team surveys open for one month
5. Plan to advertise by creating fliers, emails, etc. that are engaging and informative (see example flier [here](#))
6. Plan for survey maintenance while the survey is live-- we find that survey “care and feeding” typically takes a minimum of 1.5-2 hours/week while a survey is live to respond to questions, track response rates, update reminders and stakeholders, etc.
7. If you are able to provide incentives to encourage survey completion (see financial resources section) you will need to allocate time for obtaining, tracking, and disseminating incentives
8. Plan for analysis-- who will do this, what will they do, how much will you want to break down results by teams or to answer other questions as well as plan to carry out comparisons over time.
9. Dissemination of results: Develop a plan to disseminate results and obtain feedback. Often we find that additional analysis will be called for following discussions with change team members or others. Summarizing results in a way that is accessible and relevant is also important and can be time consuming.

From the financial side:

1. Survey fees (some surveys including the RC survey are propriety and have fees associated with their use)
2. Incentives-- we have found it helpful to provide \$5 coffee cards to all survey respondents and to have weekly drawings for \$50 Tango gift cards to encourage survey participation among front-line staff.
3. Analytic assistance-- if this is not an area of expertise for your team or something that you have time to carry out you will likely want to bring in someone to help with this piece of your work (e.g. a biostatistician and/or graduate student)

Methodological note: we explored whether to use a sample of frontline care team members for our team surveys and ultimately decided to survey the entire population for a number of reasons including: 1) to reduce confusion of messaging/encouragement to complete surveys, 2) the teams we are working with are relatively small so the “n” needed in our sample size would be quite large (approaching the population size), 3) within each group being surveyed there were many sub-teams (e.g. nurses, physicians) which increased complexity of survey administration with little methodological or other benefit.

#### **IV. Observations:**

Observations of clinical teams rounding before and after SIBR implementation can also be very helpful (in addition to or as an alternative to daily tracking) to help collect information about start time of rounds,

length of rounds, location of rounds, who is present, who contributes, what information is covered during rounds and in what way. Observations are an excellent source of both qualitative and quantitative information about rounds.

We developed 3 rounding observation tools based off of the PACT tool set:

[https://collaborate.uw.edu/pact\\_tool\\_set/](https://collaborate.uw.edu/pact_tool_set/)

The 3 observation tools adapted for SIBR are:

- 1) An overall rounds observation tool on which observers indicate information about rounds, including: the start time of rounds, end time of rounds, whether or not a brief occurred and any additional qualitative comments
- 2) An individual patient rounds tool on which to track information about what occurred during rounds for each individual patient including: start time, end time, who was present, who presented, etc.
- 3) A brief observation tool to use if teams are holding a brief prior to initiating SIBR rounds

All of the tools can be found at this link:

[https://drive.google.com/open?id=1dXODWruX\\_IJL2sLrOYGf1uCDwK5wsRvW](https://drive.google.com/open?id=1dXODWruX_IJL2sLrOYGf1uCDwK5wsRvW)

It is important to train observers to ensure that data collection is consistent. Additionally, it is important to obtain permission from hospital administration, clinical service, patients, and any others to carry out observations.

### **C. Project Management**

To sustain momentum and build on the work currently progressing around baseline data, your team may find it beneficial to create an action plan. Your action plan may include goals and objectives, identified target audience (e.g., unit, service, and patient population), team members, dissemination plan, timeline, resources (budget, staff, and project management support), evaluation plans, and potential opportunities and risks. One option to consider is a [project charter](#). This is just one example, feel free to create your own charter, or download a new one – there is an endless array of options out there. Outlining these elements in your charter will help keep the change team stay on track, and serve as a great resource to check-in on your progress.

Identifying project management support up front is enormously beneficial. Implementing SIBR is an onerous task and cannot be done alone. Your team will need to consist of those who understand the operational landscape of the unit, and those who can manage and move the work forward. Project management support can assist with updating project charters, creating meeting agenda/taking meeting notes, management of timeline and deliverables, data collection, and resource allocation. This will look different based on team needs. Funding project management support can come from a variety of sources. For example, one team was able to fund support through an internal grant focused on the initiative of care transformation, while other teams have been able to use institutional project managers. If possible, plan to incorporate project management support throughout all stages of SIBR implementation

## D. SIBR training

### I. Training to Initiate SIBR on a service/unit

Developing a plan to train front line care team members who will be carrying out rounds using a SIBR approach is a key element of SIBR implementation. We have found interprofessional training sessions of 2.5-4 hours (preferably 4 to allow more time for discussion and team building) to be useful model of introducing a combined training that includes both TeamSTEPPS and SIBR training. We strongly recommend using an interactive training approach. With the AHF care teams we held 5-four hour trainings in March 2016 to be able to provide opportunities for all front line care team members from the two AHF units to participate. The trainings started with introductions and context setting, followed by approximately 60 minutes of TeamSTEPPS training, and the remaining time was spent reviewing the SIBR template, practicing/simulating an instance of SIBR rounds (using an example case and script with speaking roles for each person outlined), and then discussing benefits, challenges, and concerns associated with the upcoming shift to SIBR.

More recently, four 2.5 hour oncology trainings we held in June 2018. We followed the same approach to AHF trainings with an abbreviated SIBR practice and discussion period. For the oncology trainings we were able to utilize a new simulation center to simulate/practice SIBR in an inpatient sim lab which increased the fidelity of the experience.



\*Platinum Oncology Team Trainings, June 2018

Below are links to example training materials from both the AHF and Oncology SIBR trainings.

Advanced Heart Failure Example Training Materials (SIBR went live in March 2016):

- 1) Training Agenda (facilitator's version): <https://drive.google.com/open?id=1r-pyZgDuLKR34TujFhwsnz65B1-cTJeS>
- 2) Training Session Slides: <https://drive.google.com/open?id=1K7kby-LnTDZqRHIN-qRiYfml8O0bEQRn>
- 3) SIBR Format Guide: [https://drive.google.com/open?id=1Fv279z\\_VwvtvQAC9Zr0\\_IL\\_RNljXvHRTZ](https://drive.google.com/open?id=1Fv279z_VwvtvQAC9Zr0_IL_RNljXvHRTZ)
- 4) Plan of the Day and Quality Checklist (typically one side is SIBR format, one side is Plan of the Day): [https://drive.google.com/open?id=1v4cIpBGgGlgwcVuqnaWEAqc-Qe2\\_HFo6i](https://drive.google.com/open?id=1v4cIpBGgGlgwcVuqnaWEAqc-Qe2_HFo6i)
- 5) SIBR Case: [https://drive.google.com/open?id=1a7KrXtJOJUTaq9xozS3n\\_PYjQPLwVobT](https://drive.google.com/open?id=1a7KrXtJOJUTaq9xozS3n_PYjQPLwVobT)
- 6) SIBR Script: [https://drive.google.com/open?id=1g8vswD1DdgAa06\\_YJ4r7NW\\_Ph4Y-Kf38](https://drive.google.com/open?id=1g8vswD1DdgAa06_YJ4r7NW_Ph4Y-Kf38)

Oncology Example Training Materials (SIBR scheduled to go live in August 2018):

- 1) Training Agenda (facilitator's version): [https://drive.google.com/open?id=1Ydxj1-UB4JsXL9rX\\_HPMfk6t6s9dUcuv](https://drive.google.com/open?id=1Ydxj1-UB4JsXL9rX_HPMfk6t6s9dUcuv)
- 2) Training Session Slides: [https://drive.google.com/open?id=1EOiIV\\_BcFA-9rrhzjP1OgbV3GQqeh6KO](https://drive.google.com/open?id=1EOiIV_BcFA-9rrhzjP1OgbV3GQqeh6KO)
- 3) SIBR Guide/Script: <https://drive.google.com/open?id=1HtmK84zialdvt7AEk5oY3hekJbruap9b>
- 4) SIBR Case: [https://drive.google.com/open?id=1Bj8qhw\\_xs\\_2uMF8ZixaMv8DVoyLgE4A](https://drive.google.com/open?id=1Bj8qhw_xs_2uMF8ZixaMv8DVoyLgE4A)

## **II. Onboarding New Team Members in a setting where SIBR is already established**

We will be continuing to add to this section on onboarding new team members to SIBR process (2018-2019) and beyond as we develop these materials. Below we present our experience to date with onboarding new members of the UWMC Advanced Heart Failure Care teams.

### ***UW Experience: Cardiology (2015 to present)***

Keeping team members up to speed on SIBR and process changes can be challenging. Each healthcare profession has their own schedule of rotating providers, graduating students/residents/fellows and new staff. Keeping all team members trained and updated is an area we continue to work on.

In 2017 we identified that education of the cardiology fellows was important to keeping the process consistent. We developed a short onboarding PowerPoint presentation reviewing the process, and embedding a “how to” video (see link to PowerPoint and Vimeo video links below). We then distributed this to the fellows and posted it on their educational website. We also conducted an in-person tutorial explaining why we started SIBR, how to do SIBR, and the data to support continuing SIBR. We also distributed the onboarding PowerPoint and video to residents, advanced practice providers (APP) students and new APP staff.

Example onboarding materials:

- 1) PowerPoint slide set: <https://drive.google.com/open?id=1K7kby-LnTDZqRHIN-qRiYfml8O0bEQRn>
- 2) Vimeo Video #1 (Team Member Roles for SIBR): <https://vimeo.com/218696610>
- 3) Vimeo Video #2 (Ideal SIBR Rounds): <https://vimeo.com/218696335>

### **E. Plan, Do, Study, Act (PDSA) cycle**

Revisiting the SIBR format and approach has been essential to the success and sustainability of the model to ensure that it meets the needs of patients and care team members. Multiple iterative PDSA cycles have been employed to support revision of the SIBR approach before implementation, during SIBR trainings, and following SIBR implementation. For those unfamiliar with the PDSA approach the following Institute for Healthcare Improvement videos are informative and engaging.

IHI videos about PDSA cycle:

Part 1: <https://www.youtube.com/watch?v=-ceS9Ta820>

Part 2 (clinical example): [https://www.youtube.com/watch?v=eYoJxjmv\\_QI](https://www.youtube.com/watch?v=eYoJxjmv_QI)

Two main groups have been involved in carrying out PDSA cycles on the SIBR format-- the first being the inpatient change team (who met as a group as well as part of larger workshops that occurred quarterly during initial HRSA grant funding period). During the larger leadership workshops, team members regularly discussed what was going well, as well as challenges to SIBR. Guest speakers were invited and time was spent trouble-shooting, discussing, and planning for potential changes. More recently, the SIBR Steering Committee has been a resource for inpatient Change Team members as a place to think about iterating their SIBR approach and to learn from other units using SIBR.

## **IV. Sustainability and Resources**

### **A. Keeping SIBR Going**

Preventing drift and sustaining acceleration will be key. Outlined below are factors that we have found useful in our sustainability of SIBR and/or recommendations we have gathered from SIBR champions across UW Medicine.

1. Continue holding Change Team meetings after SIBR is implemented
2. Incorporate peer-support, coaching, and mentoring
3. Reach out/join the UW Medicine SIBR Steering Committee (or a similar committee in your institution)
  - a. SIBR representatives from Medicine, Cardiology, and Oncology
  - b. Meets every third Wednesday of the month from 3:30-4:30pm
  - c. Email Sherri Del Bene ([delbene@uw.edu](mailto:delbene@uw.edu)) for more details
4. Provide feedback
  - a. E.g., monthly data emails
5. Start a SIBR [newsletter](#) or post [flyers](#) on your unit
6. Invest in annual surveys (e.g., Relational Coordination survey)
7. Disseminate data/results
  - a. We have disseminated our SIBR data and results at multiple venues: Cardiology Grand Rounds, UW Medicine Patient Safety Week, Systems of Care meeting (multidisciplinary meeting for Cardiology B), national/international conferences
8. Hold trainings and workshops
  - a. Reference section III, D

### **B. Additional Resources**

Staff training videos:

- [Ideal Interprofessional Team Rounding](#)
- [Team Member Roles for Interprofessional Bedside Rounds](#)

Patient and family resources:

- [Bedside Rounds](#)
- [UW Medicine Patient Education handout](#) “*Partnering with Your Care Team During bedside rounds*”