

DRAFT

Clinical Practice

Design Workbook



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EXECUTIVE SUMMARY

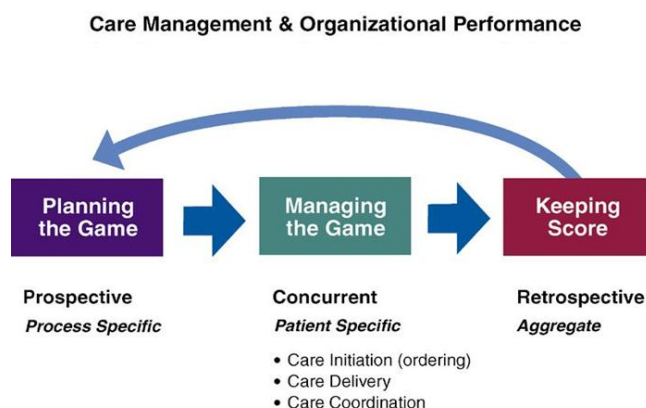
Banner Health, is committed to providing consistently excellent patient care across its hospitals using evidence based practices. Translating evidence into practice is challenging work; research has identified a 17 year time lag (Balas & Boren 2000).

To reduce this time, Banner developed a process for implementing evidence based clinical practices called “Achieving a Shared Baseline”. The process has three steps:

- Define the practice
- Design how it will be performed
- Implement using project management techniques

Banner is committed to clinical excellence. To ensure that this occurs, Banner developed a system wide collaborative effort within Care Management. Care Management’s work is directed by Banner’s Care Management Council, with broad organizational representation from more than 45 Care Management teams and workgroups that involve hundreds of Banner stakeholders. This approach facilitates system wide commitment and accountability for clinical excellence, including: definition of clear clinical performance goals, organization of improvement activities, and measurement / reporting of progress toward goals that have been integrated into management expectations. (Kirk-Liff, 2004)

Figure 1: Delivering Excellent Care



Care Management describes its clinical improvement work using a sports metaphor, as shown in Figure 1, “Delivering Excellent Care” above. It suggests that success in a sporting event includes planning for the game, managing the game with new information presented while the game is in progress, and reviewing and analyzing the results of a completed game in order to feed performance improving lessons back into the planning for the next game.

Applying this to healthcare means that there is a need to develop clear, consistent plans for patient care. Planning is process specific; it encompasses the development of clinical practices



based on both evidence and consensus. Once these practices have been developed, bedside caregivers need to be able to access concurrent, patient-specific information along with the clinical practices, to be able to deliver the best care to their patients. Finally, patient information needs to be aggregated and analyzed to identify gaps, querying causation and monitor performance.

Supporting this clinical process improvement work is an effort called “Care Transformation,” which is Banner’s commitment to clinical automation using information systems that will “hardwire” care practices identified by Care Management teams.

Clinical Practices – describes a spectrum of care that can be delivered to a group of patients with a specific clinical condition. Based on the strength of the evidence, these practices are further defined as one of the following: expected, recommended, or optional.

Expected Practices – are based on the highest level of evidence based research or strong consensus among practitioners across Banner Health. Exceptions should be rare and should be justified. Expected practices will be followed at all facilities.

Recommended Practices – are based on a high level of evidence, but have incomplete consensus among physicians. Exceptions are made based on practitioners’ clinical judgment and can be either system wide or facility specific.

Optional Practices – will be written, although there may be limited evidence and lack of consensus. They are developed as a result of a wide variation in care, and are practitioner-based for specific patient populations.



THREE PHASE PROCESS: Define, Design, and Implement

“One Team, One Game Plan” – A Three Phase Process Define, Design, Implement

In order to ensure consistent delivery of evidence based practices system wide, a three phase approach was developed:

- Define the Clinical Practice
- Design how the Clinical Practice will be performed and implemented
 - Process Flow described
 - Responsibilities identified
 - Tools created
- Implement the Clinical Practice
 - Toolkit distributed to Facility Leads
 - Facility project plan completed
 - System project meetings held



DESIGN PHASE

The output from the Design Phase is a standardized operational process and the tools to implement the approved clinical practice. The Design work group is chartered to create a reliable process to achieve stated outcomes by combining the evidenced-based clinical practice with facility successes, best practices, and experiences. The work group is comprised of a project lead, project managers and subject matter experts. The project lead is a person who is knowledgeable in the area of the clinical practice and is well-versed in the operational requirements for implementation.

At the beginning of this phase, a kickoff meeting is held involving the membership of the definition and design workgroups, and the facility leads designated by each facilities clinical leadership team; typically the Chief Medical Officer and the Chief Nursing Officer, at each facility. At this meeting the groups collaborates to identify key operational changes that will need to occur in order to implement the standardized clinical practice defined. This includes the identification of:

- Design requirements such as quality, staffing, training, communication, cost, and time frames
- Resource requirements necessary to meet the design needs
- Potential barriers to implementation and steps to overcome these barriers are identified

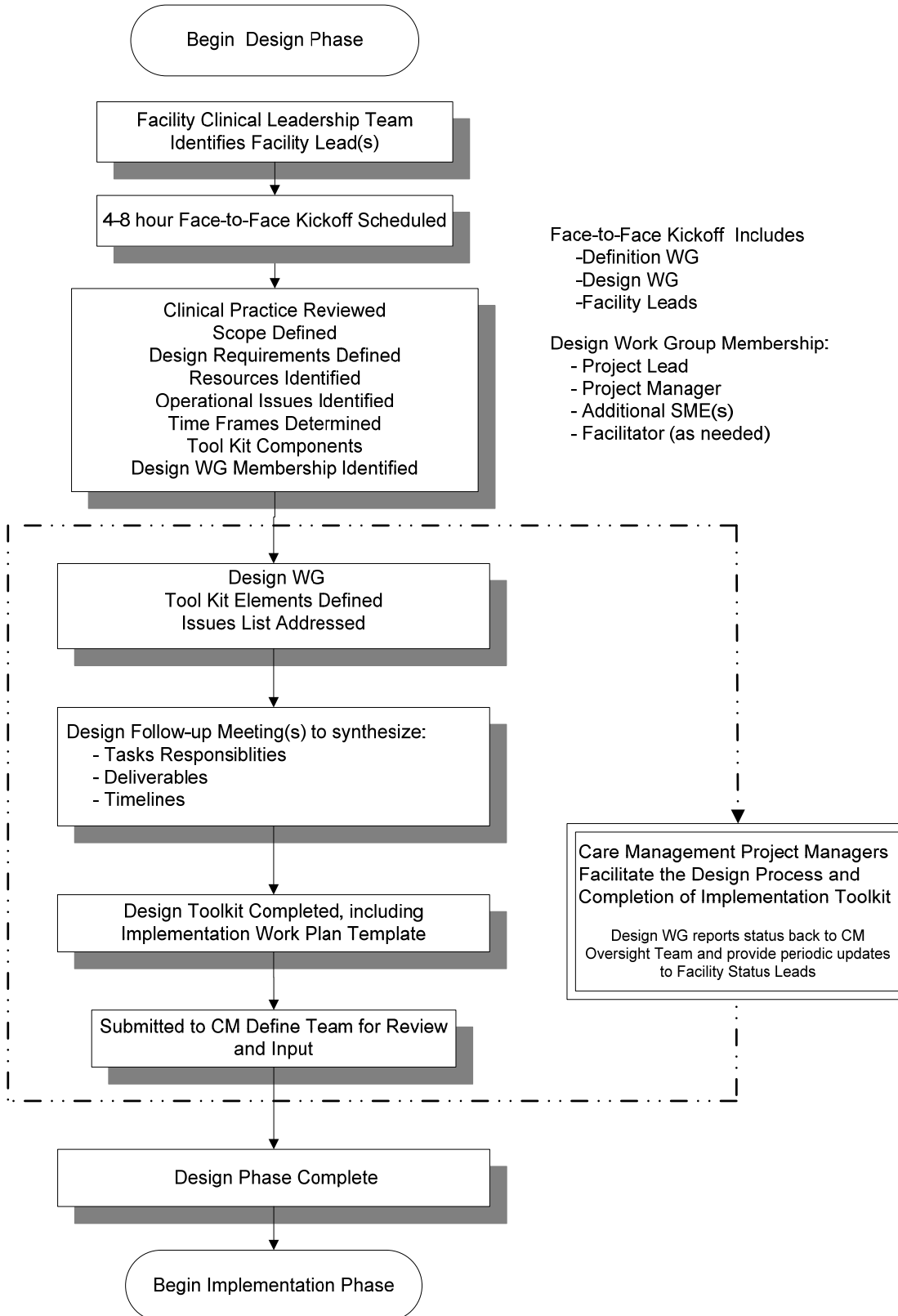
The Design work group takes the input from the kickoff meeting to further develop the details of an operational plan to implement a standardized clinical practice. This operational plan takes the form of a toolkit. Examples of the document that comprise the toolkit include:

- Process Flow - flow diagram of the operational process
- Process Requirements –hardwiring mechanisms that will standardize the process throughout the system. These are identified as being required or recommended. In addition, the measurements and the targets for each facility are documented
- Project Plan – recommended task, and timelines for facility implementation
- Education Plan
- Communization Plan
- Tools – can range from pocket card and filers to education programs.
- Reference Lists – evidence-based research that supports the clinical practice.

The Design workgroup and facility leads receive updates as milestones are made in the design process. Feedback and input is sought from these groups as the process progresses. Approval of the operational process developed and implementation toolkit occurs within the sponsoring Care Management team.



DESIGN PHASE



DESIGN TASK LIST

Task	Tool	
1	Determine Design WG membership	Pg. 5
2	Identify facility leads -Request the names of the Facility Lead from the facility clinical leadership	Pg. 5
3	Plan Design Workgroup Kickoff Meeting -Determine if additional operational experts are needed -Plan content of meeting -Send out meeting notices	Pg. 7
4	Conduct Kickoff Meeting <ul style="list-style-type: none"> a. Review Clinical Practice b. Review Design Workbook c. Stakeholders Analysis d. Current/Future State Analysis e. Start, Stop, Continue Analysis 	Pg. 7 and 8
5	Determine Design Requirements and Establish Measurement and Definitions	Pg. 9
6	Identify Operational Issues	Pg. 9
7	Identify Resources	Pg. 9
8	Develop Process Flow	Pg. 9
9	Determine Technology Design	Pg. 10
10	Assign Task Responsibilities <ul style="list-style-type: none"> a. Define Deliverables b. Define Timelines 	Pg. 9
11	Develop Order Sets, Protocols, and Policies	Pg. 9
12	Update Facility Leads and Definition Work Group	
13	Assemble Toolkit Components <ul style="list-style-type: none"> a. Facility Lead Contact List b. Facility Lead Responsibilities c. Facility Lead Implementation Process Flow d. Overview Presentation e. Clinical Process Flows f. Tools (ex: technology, order sets policies, reports etc.) g. Communication Plan and Tools h. Education/Training Plan and Tools i. Implementation Plan 	Pg. 11
14	Submit to Definition Work Group for approval	Pg. 12



DESIGN PHASE WORKBOOK

Section A

Design Workgroup Kickoff

Sample Design Kickoff Agenda

Agenda Item	Who	Duration
Welcome: Introductions and Objectives of the Meeting	Team Lead	5 min
Overview of Clinical Practice	Team Lead	10 min
Overview of Care Management and Design Process [workbook]	Project Manager	20 min
Stakeholder Analysis	Group	
Current/Future State Analysis	Group	
Start, Stop, Continue Analysis	Group	
Design Action Items: <ul style="list-style-type: none"> – Design Requirements – Flow Diagrams – Order Sets and Protocols – Policy and Procedures – Education/Training/Communication Plan – Education Materials 	Project Manager	10 min
Timeline – Future design meetings and implementation target date	Project Manager	5 min

Review Clinical Practice

At the design phase kickoff review the approved clinical practice to ensure every member of the group is familiar with the content and understands the scope of work.

Review Design Workbook

At the design phase kickoff review the design phase workbook to orient the group on the purpose of the design phase and establish the end results of design work.

Stakeholder Analysis

Identify and list all relevant stakeholders

Example Stakeholder Analysis Chart

Stakeholder	Involvement	Issues and Concerns	Influence Strategy
Physicians			
Nursing			
Pharmacists			



Respiratory Care			
Case Management			
Quality			
Advance Practice Nurse			
Information Technology			
Committees (MEC, Med Staff, etc)			
Others			

Current/Future State Analysis

Orients design group on current environment and shapes a vision for the future environment.

Future State Example from Emergency Response Order Sets Design Workgroup

Who	What	When	Where	Why	How
Physician Provider	<ul style="list-style-type: none"> Provide medical direction Write orders on admission (Table 1) 	Orders on admission	<ul style="list-style-type: none"> Check mark in CPOE Add to standard paper admission orders Reminder for handwritten 	For faster intervention and response to rapid change in pt. status	<ul style="list-style-type: none"> Admission Orders PDPS Order Sets How to catch if order not written?
Bedside Nurse	<ul style="list-style-type: none"> Same as Current Access directional orders, policy and procedures, protocol Emergency responses listed on table 1 	Initiate response for before notify physician for conditions listed on table 1	<ul style="list-style-type: none"> All pt locations Meds located on code cart and Pixis with override 	<ul style="list-style-type: none"> Order on admission Protocol built into orders to satisfy CMS 	Order activation on admission instead of notifying physician
Admitting RN	Check for orders on admission	How long into admission to wait for order to be put in?			<ul style="list-style-type: none"> Admitted pt. check list Reminder Not issue with CPOE

Start, Stop, Continue Analysis

Considers the aspects of change and use this analysis to describe how people will behave when the new change is implemented. What will people do differently? What will people stop doing? What will stay the same?



Example Start, Stop, Continue Analysis Chart

START	STOP	CONTINUE
What will we start doing in the new environment?	What will we discontinue doing?	What doesn't change?
Make a list 1. 2.	Make a list 1. 2.	Make a list 1. 2.

Design Action Items

- Design Requirements
- Flow Diagrams
- Order Sets and Protocols
- Policy and Procedures
- Education/Training/Communication Plan
- Education Materials

Example Design Action Plan from Blood Glucose Initiative

Task #	Task Issue	Owner	History	Status
1	IV Insulin Protocol/Order Set		Needs more work to standardize. How will triggers be implemented? Glucose reading of > 150 at 0,2,4 hours after admission - Discern rules? Would need approved by Med Exec committee Establish routine use of IV & Admit order sets and Multidisciplinary rounds	Open
2	Transition Protocol		Needs more work to standardize	Open
3	DKA Order Set		Lower priority but needs work to standardize	Open
4	Routine ICU Order Set	Paul	DiDi sent updated CPOE version	Open
5	Communication/Education Plan and Facility Implementation task list	Russell	CMO/Med Staff leadership route for physicians, need to pinpoint appropriate ICU people, share Baseline Data, etc.	Open
6	BI Tool Training Plan	Joel/Russell	PowerPoint presentation created Utilization Flow drafted	Open
7	BI Tool Readiness	Joel	Ongoing feedback Pilot user accounts sent	Open
8	Implementation Kickoff Presentation	Russell	Being developed	Open
9	BI Tool Presentation at ICU Physician CCG Webinar	Joel/Russell	Present at the 4/23 Webinar	Open



Conclusion of Design Kickoff

The review of the clinical practice followed by the current/future state analysis and start, stop, continue analysis captures the groups thinking to provide material for ongoing design work that includes the design requirements, process flow, identifying operational issues and resources needs, and technology needs covered in the next section of the workbook.



Section B

Ongoing Design Work

Determine Design Requirements

Design requirements are those conditions that must be met to satisfy each element of the clinical practice other aspects of the project's scope. Design requirements include hardwiring mechanisms that ensure reliable performance for each element.

Establish Measurements and Definitions

How will the design requirements be defined and measured?

Example Design Requirements and Measurements for AMI/ACS Clinical Practices

National Quality Measure	Measurement	Target 2008	Hardwiring Mechanism
AMI-1 Aspirin at Arrival	Rate of Patients with Acute Myocardial Infarction (AMI) who receive aspirin within 24 hours before or after hospital arrival	98.0%	<ul style="list-style-type: none"> ED Suspected Cardiac Chest Pain Orders/Protocol NSTEMI/Unstable Angina Admission Orders STEMI Admission Orders
AMI-2 Aspirin Prescribed at Discharge	Rate of Patients with Acute Myocardial Infarction (AMI) who are prescribed aspirin at hospital discharge	98.2%	<ul style="list-style-type: none"> Next Phase: Development of a standard process for discharge Recommended: <ul style="list-style-type: none"> STEMI Care Map Non STEMI Unstable Angina Care Map
AMI-3 ACEI or ARB for LVSD	Rate of Patients with Acute Myocardial Infarction (AMI) who are prescribed ACEI or ARB for LVSD at discharge	88.6%	
AMI-4 Adult Smoking Cessation	Rate of Patients with Acute Myocardial Infarction (AMI) who have smoked cigarettes during the year prior to hospital arrival, who receive smoking cessation advice or counseling during the hospital stay	97.2%	<ul style="list-style-type: none"> Will be implemented separately with preventative health practices
AMI-5 Beta Blocker Prescribed at Discharge	Rate of Patients with Acute Myocardial Infarction (AMI) without beta blocker contraindications who receive a beta blocker within 24 hours after hospital arrival	97.2%	<ul style="list-style-type: none"> Next Phase: Development of a standard process for discharge Recommended: <ul style="list-style-type: none"> STEMI Care Map Non STEMI Unstable Angina Care Map
AMI-6 Beta Blocker at Arrival	Rate of Patients with Acute Myocardial Infarction (AMI) without beta blocker contraindications who are prescribed a beta blocker at discharge	96.0%	<ul style="list-style-type: none"> ED Suspected Cardiac Chest Pain Orders/Protocol NSTEMI/Unstable Angina Admission Orders STEMI Admission Orders
AMI-7a Fibrinolytic Therapy Received Within 90 Minutes of Hospital Arrival	Rate of Patients with Acute Myocardial Infarction (AMI) who receive Fibrinolytic Therapy within 30 minutes of hospital arrival	42.4%	<ul style="list-style-type: none"> ED Suspected Cardiac Chest Pain Orders/Protocol Recommended: <ul style="list-style-type: none"> ED STEMI Care Map
AMI-8a Primary PCI Received within 90 Minutes of Hospital Arrival	Rate of Patients with Acute Myocardial Infarction (AMI) with ST-segment elevations receiving PCI intervention during the hospital stay with a time frame from hospital arrival to PCI of 90 minutes or less	63.6%	<ul style="list-style-type: none"> ED Suspected Cardiac Chest Pain Orders/Protocol STEMI Admission Orders D2B Practice Flow (facility specific) Recommended: <ul style="list-style-type: none"> ED STEMI Care Map

Identify Resources



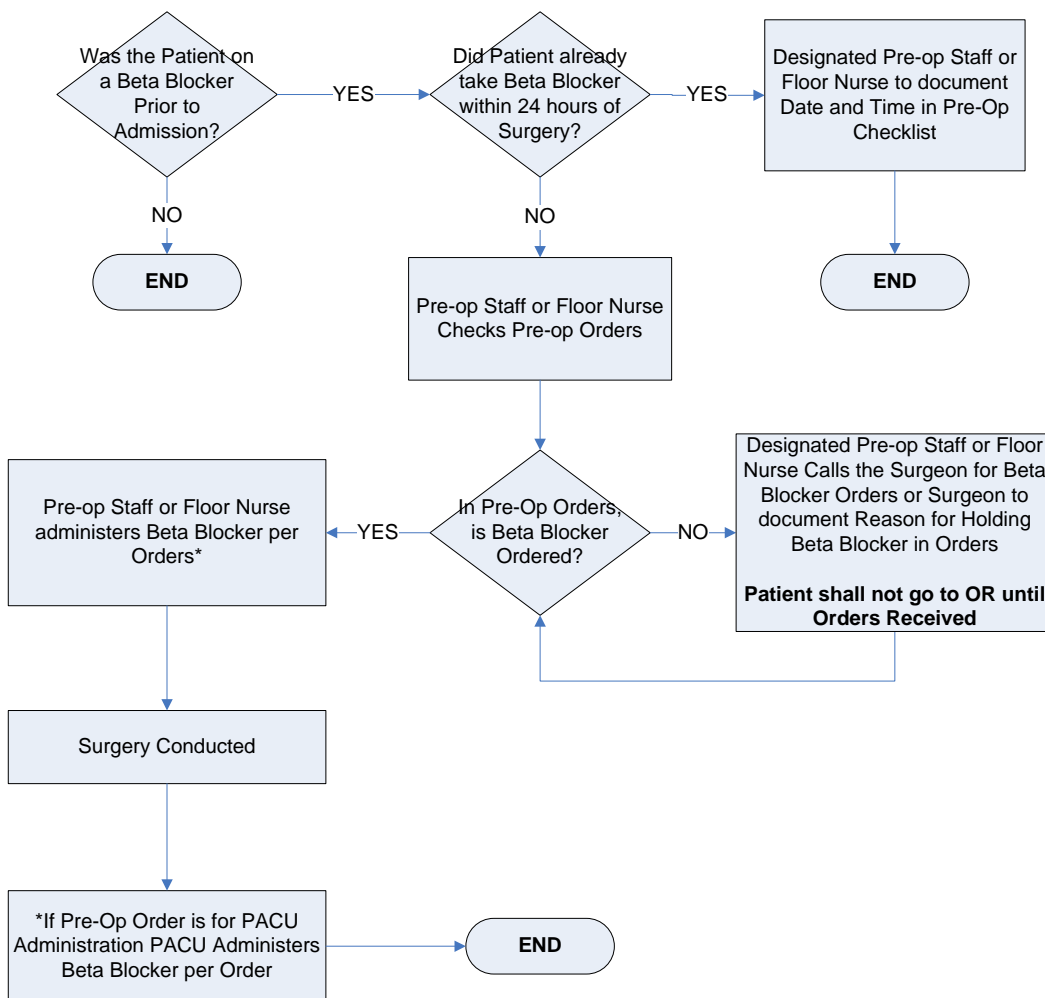
Identify Operational Issues

Develop Flow Diagrams

An important component of the design phase is to develop process flows, algorithms, and clinical pathways to standardize clinical and operational processes for the entire system.

Example Process Flow from the Surgical Care Improvement Project

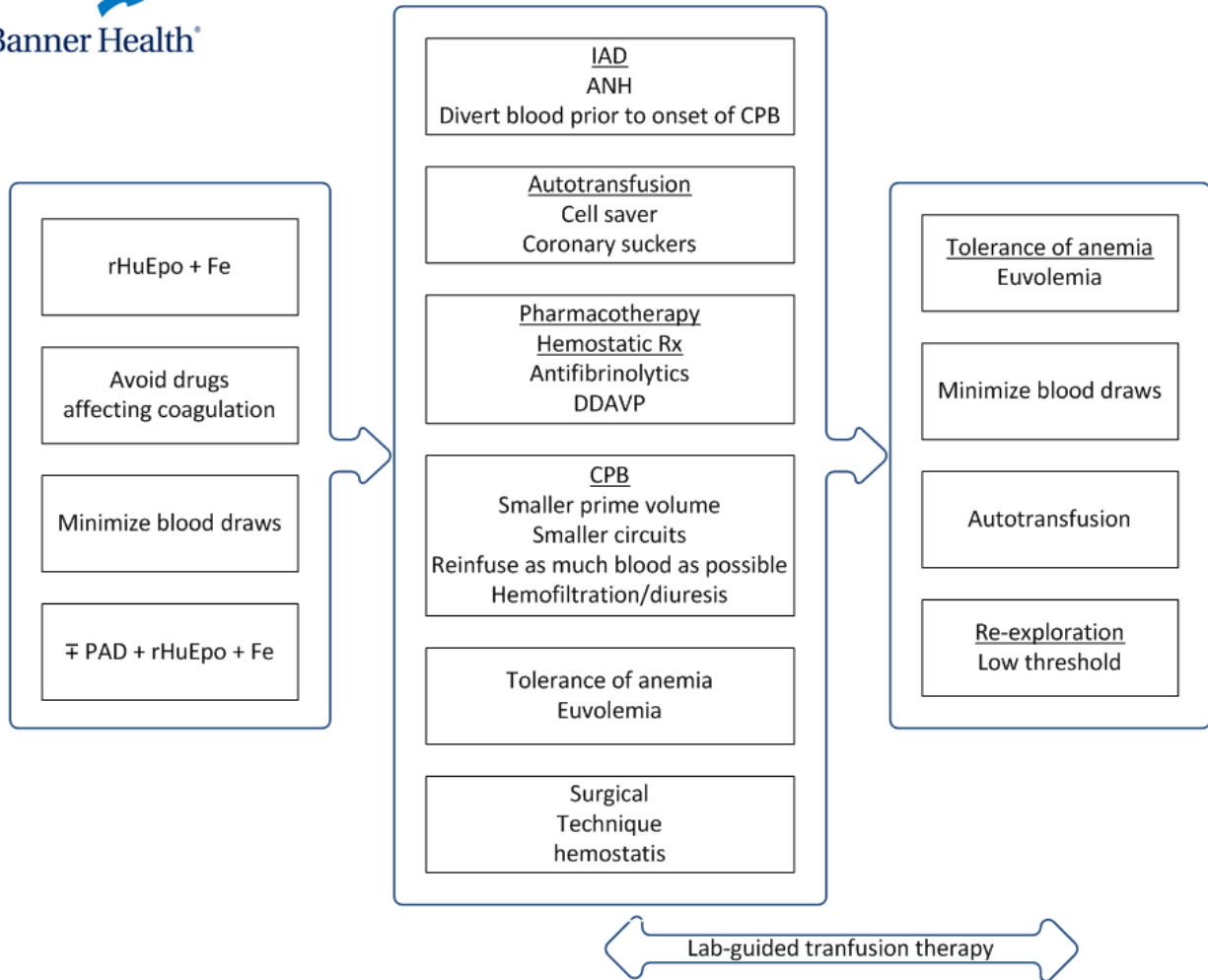
SCIP CARD 2 Beta Blocker Process Flow Same Day & Inpatient Surgery



Example Clinical Pathway from CABG Blood Utilization Workgroup



CABG Blood Utilization Pathway



Determine Technology Design—See Section C below

Design may require discern Alerts, EMR Changes, or CPOE changes, etc. that follows a separate technology design phase in coordination with Clinical Informatics. Section C details the technology design process.

Determine Time Frames

Example Time Frame Table from Blood Glucose Initiative

Major Milestones	Start Date	End Date	Status
Pre-Planning			
Organize Initiative Team	10-07	12-08	Complete
BI Blood Glucose Initiative Kick-off	12/20/08	12-08	Complete
Establish targets for 2 nd half based on data from prior periods	04-07	03-08	Complete



Clarify Definition, Scope, Measures of Success	10-07	11-07	Complete
Business Intelligence Tool			
Business Intelligence Baseline Data	10-07	3/03/08	Complete
Develop BI Tool Content and Design	10-07	03-08	In Progress
Clinical Practice Definition Phase			
Determine Appropriate Interventions/Actions	10-07	02-08	Complete
Develop Clinical Practice	01-08	03-08	Complete
Submit Clinical Practice to CM Council	2Q08	03-08	Complete
Implementation Design Phase			
Blood Glucose Clinical Practice Implementation Design	03-08	6/01/08	In Progress
BI Tool Implementation Design	03-08	6/01/08	In Progress
Implementation Phase			
Blood Glucose Clinical Practice Implementation	6/01/08	4Q08	Planned
BI Tool Implementation	6/01/08	4Q08	Planned
Monitoring Phase			

Develop Order Sets and Protocol

Develop Policies and Procedures

Develop Implementation Plan



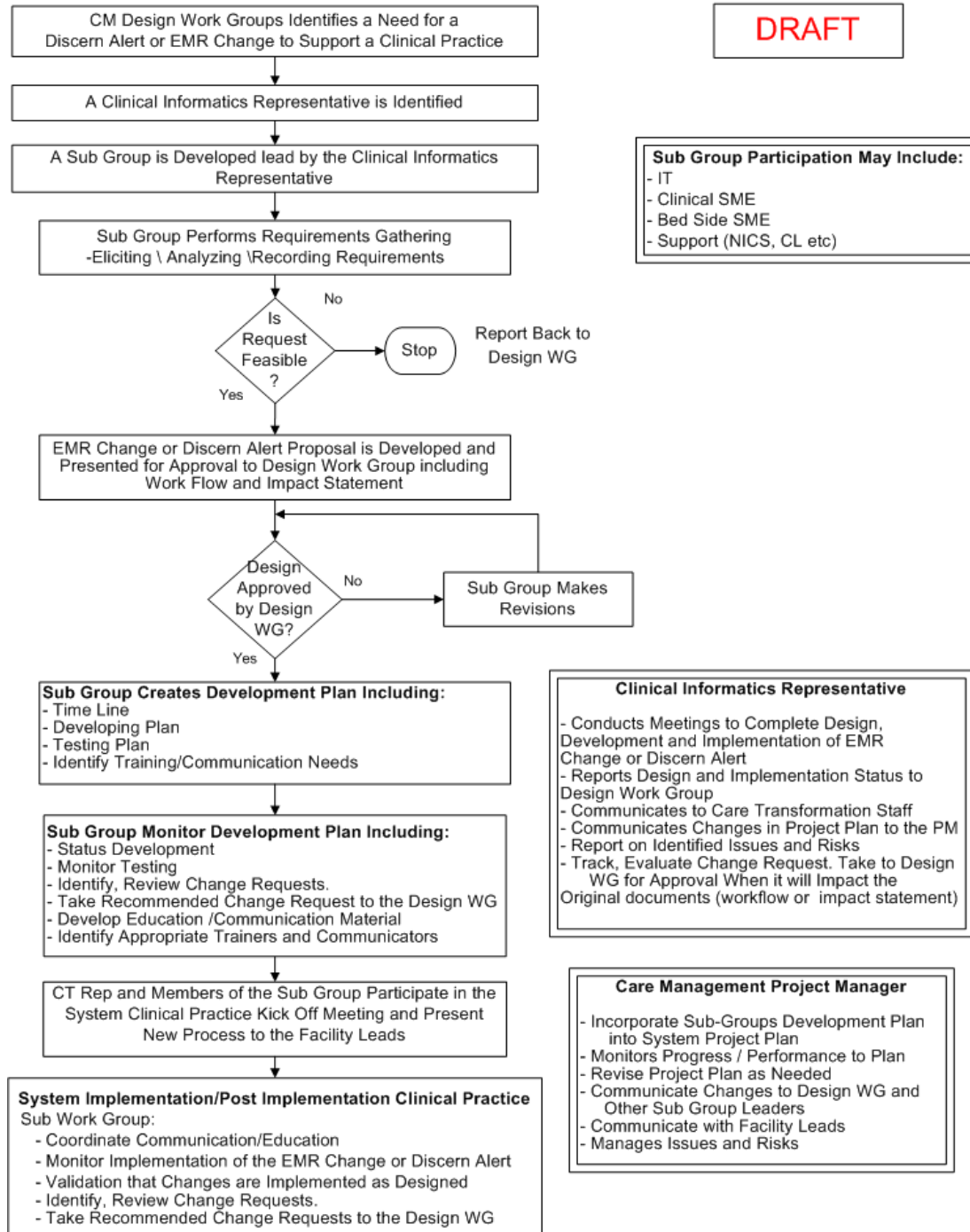
Example Implementation Plan from CABG Blood Utilization Workgroup

CABG BLOOD UTILIZATION IMPLEMENTATION PLAN

	9/10/2009	9/14/2009	9/21/2009	9/28/2009	10/5/2009	10/12/2009	10/19/2009	10/26/2009	11/2/2009
TASK DESCRIPTION	Pre-Impl	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Post-Impl
PROJECT PLANNING									
Facility Lead Attends System-level Kickoff Meeting									
FACILITY TEAM									
Identify Facility Work Group Membership									
Schedule Facility Implementation Work Group Meetings									
Review CABG Blood Utilization Toolkit									
Identify Facility Implementation Tasks and Assign									
COMMUNICATION PLANNING									
Review Communication Plan from Toolkit									
Append with Facility-Specific Communication Strategies									
IMPLEMENTATION STAKEHOLDER MEETINGS									
Review CABG Blood Utilization Clinical Practice with Staff									
Med Staff Meetings									
Schedule Facility-level Med Staff Meetings									
Review CABG Blood Utilization Clinical Practice with Staff									
TRAINING / EDUCATION PLANNING									
Append Education Plan with Facility-Specific Education Strategies									
DEPARTMENTAL TRAINING									
Facility Leads Distribute Educational Materials to Departmental Committees / Clinical Managers (e.g., Clinical Practices, Process Flows, Beta Blocker Orders Documentation, etc.)									
Train Clinical Educators									
PHYSICIANS TRAINING / EDUCATION									
Conduct Physicians Training									
Operationalize Training Materials with New Physician Training									
FACILITY IMPLEMENTATION									
CABG Blood Utilization Clinical Practice Go-Live Date (10/26/09)								Go-Live	
Implement CABG Blood Utilization Clinical Practice Documentation									
Implement Ongoing Training/Education Plan									
Hold Progress Meetings									
MONITOR PROCESS									
Establish Process to Periodically Verify Process/Flow is Being Followed									
Establish Process to Address Deviations from Process/Flow									
Monitor Process and Address Deviations from Process/Flow									
POST-IMPLEMENTATION ASSESSMENT									
Lessons Learned									
Celebrate									

Section C Technology Design

Clinical Informatics Implementation Process Flow for Care Management Clinical Practices



Section D

Implementation Toolkit

Toolkit Components

- a. Facility Lead Contact List
- b. Facility Lead Responsibilities
- c. Facility Lead Implementation Process Flow
- d. Implementation Kickoff Agenda
- e. Overview Presentation
- f. Clinical Process Flows
- g. Technology
 - i. Flows
 - ii. Rules
 - iii. Tip Sheets
 - iv. Technical Design Documents
- h. Order Sets and Protocols
- i. Policy and Procedures
- j. Communication Plan
- k. Education/Training Plan
- l. Communication and Education Presentations or Documents
- m. Implementation Plan



Section E
Design Phase Completion

Submit to Definition Work Group for approval

Assist Definition Workgroup in Implementation Planning

Pilot if appropriate

