

**Bree Collaborative Implementation Survey Results | Hospitals
Coronary Artery Bypass Surgery Bundled Payment Model and Warranty**

This report summarizes adoption of the Bree Collaborative’s Coronary Artery Bypass Surgery Bundled Payment Model and Warranty, completed by Washington State hospitals in 2016. We measured adoption of specific recommendations using 0-3 point scale, self-assessed by each hospital.

Results: 4 Hospitals Responding

0 -No action taken; 1 -Actively considering adoption; 2 -Some/similar adoption; 3 -Full adoption

	AVERAGE SCORE
I: DISABILITY DESPITE NON-SURGICAL THERAPY	
A) Document disability	
1. Grade of angina (I-IV) documented according to Canadian Cardiovascular Society grade of angina pectoris	1.50
2. Disability documented according to the Seattle Angina Questionnaire-7	1.00
3. Self-reported loss of function documented with Patient Reported Outcomes Measurement Information System-10® (PROMIS-10)	1.33
B) Myocardial ischemia documented with appropriate non-invasive stress testing according to 2012 ACCF, et.al. Guidelines & 2014 Guidelines Focused Update	2.00
C) Risk factor modification begun according to ACCF Guideline above unless need for urgent intervention	
1. Patient education begun with a goal of empowering and improving participation in shared decision-making	2.25
2. Cardiac diet begun or maintained, with attention to:	
a) Weight management to maintain or achieve a BMI between 18.5 and 24.9 kg/m2;	1.75
b) Blood pressure management;	2.50
c) Lipid management	2.75
3. Appropriate physical activity advised:	
a) Estimate risk of physical activity;	2.00
b) 30-60 minutes moderate-intensity activity recommended daily for low risk patients;	1.50
c) Medically supervised exercise considered for higher-risk patients	1.75
4. Overuse of alcohol screened and manage if needed	2.00
5. Patient assisted with smoking cessation if needed	2.75
6. Diabetes managed with target HbA1c between 7-9% depending on risk/benefit	2.00
7. Depression screened and treated if positive	1.75
8. Stress management considered and assistance given if indicated	1.75
9. Dementia screened and managed as necessary if positive	1.75

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10. Immunize against influenza annually	1.75
11. Statin medication prescribed unless contraindicated	3.00
12. Blood pressure managed according to March 2015 guideline update from AHA/ACC/AHS, including anti-hypertensive drugs for BP above guideline goals	2.75
13. Antiplatelet therapy prescribed unless contraindicated	3.00
14. Beta blocker therapy prescribed unless contraindicated	3.00
15. Renin-angiotensin-aldosterone blocker therapy prescribed, per ACCF Guideline	3.00
16. Anti-anginal therapy prescribed as tolerated, with two or more of the following agents as needed: a) Beta blockers; b) Calcium channel blockers when beta blockers are contraindicated or unsuccessful; c) Long acting nitrates; d) Ranolazine	3.00
D) Patients stratified prior to determining appropriate intervention	
1. Multidisciplinary Heart Team approach used in decision making for patients with complex coronary artery disease composed of an interventional cardiologist, a cardiac surgeon, and other consultants, as needed	1.75
2. Interventions based on the 2012 ACCF Guidelines (http://content.onlinejacc.org/article.aspx?articleid=1201161)	2.25
3. STS score used to assist with decision for intervention	2.25
4. Additional factors considered such as left main disease, diabetes with multi-vessel disease, and severity of symptoms related to ischemia	2.50
II: FITNESS FOR SURGERY	
A) Requirements documented related to patient safety (if compatible)	
1. Body Mass Index less than 40	1.67
2. Hemoglobin A1c less than 8% in patients with diabetes	2.00
3. Adequate nutritional status to ensure healing	1.33
4. Sufficient liver function to ensure healing	2.33
5. Pre-operative plan for management of opioid dependency, if patient has taken opioids for more than three months	0.33
6. Avoidance of smoking for at least four weeks pre-operatively	1.67
7. Alcohol abuse screened for with management plan if screen is positive	1.33
8. Depression screened for with management plan if positive	1.33
9. Dementia screened for with management plan if positive	1.33
10. Pre-operative plan developed for post-operative return to function	2.33
11. Risk for co-occurring cerebrovascular disease assessed; including imaging carotid circulation (ultrasound or MRA) for clinically high-risk patients	2.33

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a) Patients with high-risk carotid arterial disease treated according to ACC/AHA guidelines, 2012	2.67
B) Patient engagement documented	
1. Patient participates actively in shared decision-making with full knowledge of risks, benefits, alternatives, and preferences; this requirement is in addition to informed consent	2.00
a) Patient engages in a discrete shared decision-making process with a credentialed health coach or equivalent	0.50
b) Validated shared decision-making aid included such as those certified by the Washington State Health Care Authority, if available	0.50
c) During this encounter, the patient and coach addresses:	
i. Issues related to an active, life-limiting condition that would likely cause death before recovery from surgery	0.50
ii. Disability from an unrelated condition that would severely limit the benefits of surgery	0.50
iii. Dementia that would interfere with recovery from surgery; performing surgery on a patient with such dementia requires preauthorization, informed consent of a person with durable power of attorney for health care, and a contract with the patient's care partner regarding accountability for care aligned with the patient's care plan and made available to the purchaser	0.50
iv. For patients 65 years and older, the ASCERT calculator may be used to assess likelihood of survival from CABG	0.50
d) Patient's preference documented for treatment as part of this encounter	0.50
2. Patient designates a personal care partner; patient and care partner actively participate in the following:	
a) Surgical consultation	2.00
b) Pre-operative evaluation	2.00
c) Pre-surgical class and/or required surgical and anesthesia educational programs	2.00
d) In-hospital care	2.00
e) Post-operative care teaching patients home care and exercise program	2.00
f) Assessment of home-based physical and psychosocial hazards that may interfere with recovery	2.00
3. End-of-life planning offered to patient, including completion of an advance directive, designation of durable power of attorney for health care, and participation in an option for organ donation	2.00
4. Patient encouraged to participate in the COAP registry with two years follow-up data collection	1.00

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C) Optimal preparation for surgery documented	
1. Pre-operative history, physical, and screening lab tests performed based on review of systems:	
a) Pulmonary fitness evaluated;	2.25
b) Basic lab profile, plasma glucose, prothrombin time, complete blood count, urinalysis with culture, obtained if indicated;	3.00
c) Nasal passages cultured to identify staphylococcal carrier state and treat accordingly;	2.25
d) Screens done for predictors of delirium	1.00
2. Relevant consultations obtained:	
a) Evaluating for good dental hygiene in high-risk patients;	2.25
b) Referrals are made to Anesthesia for pre-operative assessment including identification and management of conditions such as sleep apnea and pulmonary hypertension;	1.75
c) Other consultations requested, as necessary	2.50
3. Post-operative care plan reviewed, including cardiac rehabilitation	2.75
4. Patient started or continued on statin therapy (unless contraindicated) according to current guidelines	2.50
5. Beta-blocker administered during the perioperative period for all patients on beta-blocker therapy prior to surgery	2.75
6. Beta blockers administered at least 24-hours before CABG to all patients without contraindications to reduce the incidence of complications of post-operative atrial fibrillation	2.00
7. Aspirin begun or continued unless contraindicated	2.75
8. Patient-reported measures collected to confirm lack of significant response to non-surgical treatments using:	
a) General health questionnaire PROMIS-10;	0.25
b) Condition-specific/standard disability questionnaire: Seattle Angina Questionnaire-7	0.75
III. CABG PROCEDURE	
"2011 ACCF/AHA Guideline for Coronary Artery Bypass Graft Surgery" guideline followed or more recent if possible: http://circ.ahajournals.org/content/124/23/e652.full.pdf+html	3.00
A) General standards for a surgical team performing surgery	
1. Cardiac surgeons board certified or board eligible by the American Board of Thoracic Surgery or certified by a reciprocal and equivalent credentialing organization	2.75

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2. Surgeon outcome metrics are within two standard deviations, away from the desired direction, of the community standard (e.g., mean) of the Clinical Outcome Assessment Program (COAP) Level I quality indicators; these include: mortality, post-operative stroke, and renal insufficiency requiring dialysis based on at least 25 open heart surgeries (elective and urgent) to ensure statistical reliability	2.75
3. Members of the surgical team have documented credentials, training, and experience	3.00
4. Consistency ensured in roster of the surgical team	3.00
5. Surgery performed in an inpatient facility	3.00
6. Policies aligned with the American College of Surgeons Statement on Health Care Industry Representatives in the Operating Room in facilities in which surgery is performed	3.00
B) Elements of optimal surgical process	
1. Pain management and anesthesia optimized:	
a) Anesthesia management format used to minimize sedation and encourage early extubation and recovery;	3.00
b) Use of opioids minimized and prescribed according to Washington State Agency Medical Director's Group Opioid Prescribing Guidelines, 2015 Interagency Guidelines or more recent if available	2.75
2. Infection avoided:	
a) Appropriate peri-operative course of antibiotics administered according to guidelines set forth in the Surgical Care Improvement Project (SCIP): SCIP-Inf-1b, 2b, 3b; CMS Measure 1, 2, 3;	3.00
b) Urinary catheter use restricted to less than 48 hours per SCIP guidelines: SCIP-Inf-9;	3.00
c) Appropriate method for hair removal used, shaving avoided: SCIP-Inf-6;	3.00
d) Appropriate skin prep used by patient prior to surgery	3.00
3. Bleeding and low blood pressure avoided:	
a) Standardized protocols administered using appropriate medications to limit blood loss;	3.00
b) Institution-based standard IV fluid and inotrope protocols used including those implemented by RNs post-operatively with appropriate supervision and monitoring	2.25
4. Deep venous thrombosis and embolism avoided according to guidelines set forth in the SCIP VTE-2, CMS Measure 4	3.00
5. Avoiding hyperglycemia: Standardized protocol used to maintain optimal glucose control, SCIP-Inf-4	2.75
6. Perioperative temperature managed, SCIP-Inf-10	2.75

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C) Participation in registries	
1. Participating in the Washington State Clinical Outcomes Assessment Program (COAP) for cardiovascular surgery	3.00
IV. POST-OPERATIVE CARE AND RETURN TO FUNCTION	
A) Standard process for post-operative care	
1. A rapid and durable recovery track utilized to mobilize patients following surgery:	
a) Cardiac rehabilitation provided, including early ambulation during hospitalization, outpatient prescriptive exercise training, and education;	3.00
b) Patient-oriented visual cue provided to record progress on functional milestones required for discharge;	2.25
c) Risk factor modification reinforced;	3.00
d) Care Partner instructed to assist with home care	2.25
2. Access provided to hospitalists or appropriate medical consultants for consultation to assist with complex or unstable medical problems in the post-operative period	3.00
3. Post-operative nursing and rehabilitative needs addressed for patients that meet Medicare standards and will be discharged to a skilled nursing facility	3.00
4. Follow-up call scheduled by the surgical team to patient and family 24 to 48 hours and seven days post discharge.	3.00
B) Standardized hospital discharge process used, aligned with Washington State Hospital Association (WSHA) toolkit	
1. Follow up arranged with outpatient care team according to WSHA toolkit	2.50
2. Social and resource barriers evaluated based on WSHA toolkit	2.00
3. Smoking cessation program continued for previous nicotine users	3.00
4. Medications reconciled to ensure essential medications are started or continued:	
a) Anti-platelet medication: CMS Measure 10;	2.67
b) Statins;	3.00
c) Aspirin	3.00
5. Patient and family/caregiver education provided with plan of care:	
a) Signs or symptoms that warrant follow-up with provider;	2.33
b) Guidelines for emergency care and alternatives to emergency care;	2.67
c) Contact information for cardiac care team and primary care provider	2.67
6. Post-discharge phone call ensured to patient by care team to check progress, with timing of call aligned with WSHA toolkit	2.67
7. Hospital discharge kit provided upon discharge according to WSHA toolkit	1.00
C) Home care arranged	

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1. Patient and care partner provided with information regarding home care	2.75
2. Additional home health services arranged as necessary	2.75
D) Post-operative care arranged	
1. Post-discharge summary sent to primary care provider within three business days of discharge	2.75
2. Cardiac rehab scheduled to be managed as clinically appropriate	2.75
3. Follow up appointments scheduled as appropriate	2.75
4. Patient-reported functional outcomes measured with standard instrument at three months:	
a) SAQ-7;	0.33
b) PROMIS-10.	0.33
5. If opioid use exceeds six weeks, a formal plan for opioid management is developed	0.75

Scale

0 - No action taken	<ul style="list-style-type: none"> No leadership awareness of Bree Collaborative Topics No team formed
1 - Actively considering adoption	<ul style="list-style-type: none"> Bree topics, aims and components have been discussed Education, assessment, information gathering Changes planned but not tested Information gathering and baseline measurement begun
2 - Some/similar adoption	<ul style="list-style-type: none"> Initial test cycles completed for more than one element Quality metrics and data available demonstrating adoption/effectiveness Other similar (Bree-like) changes adopted for this topic
3 - Full adoption	<ul style="list-style-type: none"> Changes implemented in all areas All components integrated into care process (i.e. orders, etc.) Partial or complete closure of gap between baseline & target outcomes

Participating Hospitals

CHI Franciscan Health

Highline Medical Center
St. Elizabeth Hospital
St. Francis Hospital
St. Joseph Medical Center
Harrison Medical Center

Mary Bridge Children’s Hospital

University of Washington
Harborview
Valley Medical Center
Northwest Hospital
University of Washington Medical Center

Confluence Health-Central Washington Hospital

Swedish

The Everett Clinic (surgical bundle topics)

First Hill
Cherry Hill
Issaquah
Ballard
Edmonds

MultiCare

Tacoma General Hospital
Good Samaritan Hospital
Auburn Medical Center
Covington Hospital

Virginia Mason Medical Center

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