increased from 18% to 89%. Delayed start time averaged 6 min. Huddle broke down when the social worker was absent. Education beyond the primary team and a system to identify a back-up team leader were developed.

Conclusions With sustained focus on outcome of all patients having psychosocial needs addressed, there was significant and sustained change. Use of SPC informed subsequent PDSA cycles. When huddle convened there was sufficient time to discuss the entire census. Addition of the question, Would you be surprised if this patient were to die in the next 6 months? appears to be a powerful trigger for early palliative care consultation. Further data collection will determine if change is sustainable.

IHI ID 12

PATIENT RATINGS OF DISCHARGE INFORMATION AND CARE TRANSITION IN HCAHPS SURVEY PREDICT 30-DAY CABG MORTALITY AND READMISSIONS

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Background Improved discharge planning has been implicated in reducing post-operative complications. Readmissions and

A. HCAHPS - received discharge information

B. HCAHPS - understood care transition

Abstract IHI ID 12 Figure 1 30-day CABG readmissions and mortality rates by HCAHPS ratings of discharge planning

(A) Readmissions and mortality rates (morbidity-adjusted) between hospitals scoring in the top half (n=474 and n=469, respectively) and bottom half (n=551 and n=548) on HCAHPS ratings of discharge information. (B) Readmissions and mortality rates between hospitals scoring in the top half (n=448 and n=446) and bottom half (n=577 and n=571) on HCAHPS ratings of care transition. Bars represent mean $\pm$ SEM, ***p<0.001, compared by two-tailed independent t-test

Abstract IHI ID 12 Table 1 Pearson and partial correlations. HCAHPS ratings of discharge planning vs CABG 30-day complications, controlling for case volume

Control variables		Percent surveys reporting 'Yes' to receiving discharge information	Percent surveys reporting 'Strongly Agree' with understanding care transition	30-day CABG mortality rate	30-day CABG readmissions
-none ^a	Percent surveys reporting 'Yes' to receiving discharge information	1.000	0.555* *	-0.100* *	-0.246* *
	Percent surveys reporting 'Strongly Agree' with understanding care transition	0.555* *	1.000	-0.124* *	-0.191* *
	CABG case volume	0.082* *	0.200* *	-0.205* *	-0.100* *
CABG case volume	Percent surveys reporting 'Yes' to receiving discharge information	1.000	0.551* *	-0.085* *	-0.240* *
	Percent surveys reporting "Strongly Agree" with understanding care transition	0.551* *	1.000	-0.087* *	-0.175* *

** Correlation is significant at $p < 0.01$

a. Cells contain zero-order (Pearson) correlations.

mortality after coronary artery bypass grafting (CABG) are two procedure-specific complications Medicare publicly reports. While patient assessments of discharge planning within Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys factor into Medicare hospital reimbursement, their association with outcomes after CABG is unknown.

Objectives We evaluated relationships between HCAHPS patient ratings of care transition and discharge information on 30 day CABG readmissions and mortality.

Methods Data were extracted from Medicare Hospital Compare (July 2018). Pearson and partial correlations measured associations between HCAHPS ratings (percent top-box responses) and morbidity-adjusted CABG mortality and readmissions, controlling for procedure volume. Independent t-tests compared complication rates between hospitals scoring in the top and bottom half on discharge planning ratings.

Results Our analysis included 1017 hospitals with available CABG data. Adjusted for procedure volume, discharge information and care transition ratings negatively correlated with 30 day readmissions ($r = -0.24$, $p < 0.001$ and $r = -0.18$, $p < 0.001$) and mortality ($r = -0.085$, $p = 0.007$ and $r = -0.087$, $p = 0.006$) (table 1). Readmissions (13.4 per 100 discharges SD1.8 vs 14.01.9) and mortality (3.1%0.9% vs 3.3%1.0%) were lower in hospitals with high ratings of discharge information compared to hospitals with lower ratings ($p < 0.001$). Readmissions (13.41.8 vs 14.01.8) and mortality (3.1%0.9% vs 3.3%1.0%) were also lower in hospitals with high care transition ratings ($p < 0.001$) (figure 1).

Conclusions HCAHPS discharge information and care transition ratings have significant inverse relationships with 30 day CABG mortality and readmissions, even after adjusting for morbidity and volume. Our analysis suggests health literacy at discharge serves as an important benchmark in improving surgical outcomes.

IHI ID 13 CREATING AN INPATIENT OPIOID SAFETY BUNDLE USING MODIFIED DELPHI PROCESS

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Background Opioids are essential medicines for treating pain but are the most common class of medicines that cause harm to inpatients. To address this, The Health Quality and Safety Commission partnered with district health board (DHB) hospitals across New Zealand, in a national formative collaborative to create bundles of care to reduce opioid-related harm.

Objectives To reduce opioid-related harm by 25% in participating areas of hospitals by April 2016 and develop care bundles to reduce opioid-related harm.

Methods Teams used a modified Delphi process to select the best interventions for the individual harm bundle and the composite care bundle. DHB teams identified the elements (interventions) for the harm bundles. Elements were then reviewed by Delphi panels where members scored the elements based on their suitability for inclusion in an emerging composite care bundle. Inclusion of interventions in the care bundles was based on published evidence, local quality improvement data and expert opinion. The collaboratives expert faculty carried out further Delphi rounds to finalise composite care bundle.

Results Four care bundles were developed, including three care bundles for individual harm areas (opioid-induced constipation, opioid-induced ventilatory impairment and uncontrolled pain) and a composite care bundle (covering all the harms as well as opioid-induced nausea and vomiting), supported by a comprehensive how-to-guide to support further opioid safety work. 7/12 hospitals (58 percent) showed greater than 25 percent relative reduction in opioid-related harm, with 6/12 (50 percent) exhibiting a special cause in statistical process control chart.