

In Pursuit of Excellence: The CheckPoint Journey

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Abstract

In March 2004, the Wisconsin Hospital Association launched CheckPointSM (www.wicheckpoint.org) to provide consumers with information on the quality and safety of hospital care, and to assist hospitals and physicians in quality improvement activities. Since its inception, the state average achievement for all CheckPoint measures has increased or maintained a high initial rate, with 99% of Wisconsin hospitals voluntarily participating. The current state average is greater than 90% or 90 points (scale 0-100 points) on 11 of the original 19 measures. Over the next 2 years, additional measures will be added that will expand the scope of information available on CheckPoint.

Introduction

On March 30, 2004, the Wisconsin Hospital Association (WHA) launched CheckPoint, a public Web site to report the quality and safety of hospital care. CheckPoint's mission is 2-fold: to provide consumers with reliable, valid measures to facilitate their selection of quality health care and to assist hospital-based,

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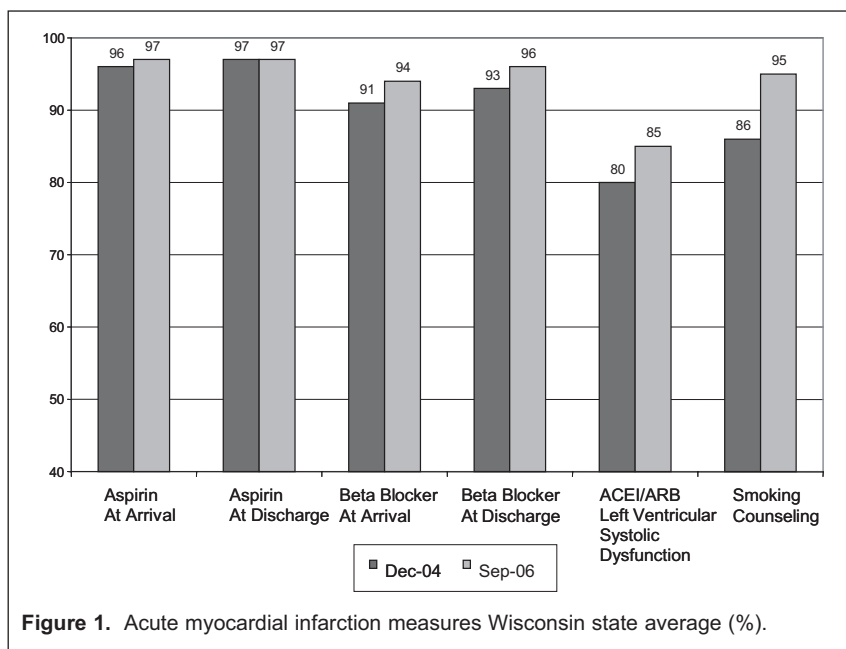


Figure 1. Acute myocardial infarction measures Wisconsin state average (%).

physician-led quality improvement activities. The first report consisted of 10 medical services measures for acute myocardial infarction, congestive heart failure, and community-acquired pneumonia. These clinical areas were selected because they represent 3 of the most common causes of hospitalization. In addition, 5 error prevention measures were included that are indicators of a hospital's progress toward national patient safety goals set by the Joint Commission on Accreditation of Health Care Organizations (JCAHO). Today, CheckPoint reports on 14 medical services measures including smoking cessation counseling and congestive heart failure discharge instruction measures.

In December 2005, 8 new surgical infection prevention measures were added that relate to 4 common procedures; knee and hip surgery, hysterectomy, and abdominal surgery. One of the original error prevention measures—assure free flow protection on all IV and PCA pumps—has been retired from CheckPoint since all reporting hospitals achieved the maximum score of 100 points for 2 consecutive, 6-month periods. In its place, a new measure was developed that focuses on medication reconciliation. The first report of the medication reconciliation measure occurred in March 2006 (Table 1).

Two Years Later

Over the past couple of years,

Wisconsin hospitals and their medical staffs have focused on implementing evidenced-based practices and increasing the consistency of their performance when caring for patients with acute myocardial infarction, congestive heart failure, and community-acquired pneumonia. Safe practices have been initiated to reduce the likelihood that an error will occur. CheckPoint tracks the result of these efforts. As shown in Figures 1-3, the state average achievement has increased or maintained a high initial rate for all 14 medical services measures between December 2004 and September 2006. The number of hospitals reporting was 115 and 117 respectively. Today, the state average is greater than 90% for 7 of the 14 measures. The greatest rate of improvement was the 55% increase that occurred in providing pneumococcal vaccination to patients with community-acquired pneumonia. The next highest rate of improvement was achieved for smoking cessation counseling for community-acquired pneumonia (36%) and congestive heart failure (34%) patients. Despite a 21% increase in providing congestive heart failure patients with comprehensive discharge instructions, opportunity for improvement still exists in this area.

Figure 4 depicts the results of the error prevention measures. These results represent the state average of an aggregate score ranging from 0 to 100 points. In March 2004, 69 hospitals reported the error prevention measures, while 111 hospitals reported in September 2006. The current state average ranges from 98-100 points for 4 out of 5 error prevention measures. Since the medication reconciliation measure was just added to CheckPoint in March 2006, there is no past performance data for comparison.

In addition to being used to monitor and report hospital performance to stimulate improvement, CheckPoint is used by other

Table 1. Current CheckPoint Measures

Acute Myocardial Infarction

1. Aspirin on arrival
2. Aspirin prescribed at discharge
3. Beta-blocker given on arrival
4. Beta-blocker prescribed at discharge
5. Ace inhibitor or ARB for left ventricular systolic dysfunction
6. Smoking cessation counseling

Community-Acquired Pneumonia

7. First antibiotic received within 4 hours of admission
8. Oxygenation assessed
9. Pneumococcal screen and vaccination given
10. Smoking cessation counseling

Congestive Heart Failure

11. Left ventricular functional assessed
12. Ace inhibitor or ARB for left ventricular systolic dysfunction
13. Smoking cessation counseling
14. Complete discharge instructions

Error Prevention

15. Mark the surgical/procedural site
16. Verification for the right patient, right procedure, right site, right equipment prior to a procedure
17. Elimination of dangerous abbreviations
18. Remove concentrated electrolytes from patient care areas
19. Utilization of free flow protected on all IV and OCA pumps – retired
20. Medications reconciled within 48 hours of admission

Surgical Infection Prevention

Hip surgery

21. Prophylactic antibiotic within 1 hour of incision
22. Prophylactic antibiotic discontinued within 48 hours after surgery

Knee surgery

23. Prophylactic antibiotic within 1 hour of incision
24. Prophylactic antibiotic discontinued within 48 hours after surgery

Hysterectomy

25. Prophylactic antibiotic within 1 hour of incision
26. Prophylactic antibiotic discontinued within 48 hours after surgery

Abdominal Surgery

27. Prophylactic antibiotic within 1 hour of incision
28. Prophylactic antibiotic discontinued within 48 hours after surgery

health care constituents. The state of Wisconsin Employee Trust Fund includes information about hospital participation in CheckPoint in their “It’s Your Choice” member education manual. Wisconsin-based health plans are using CheckPoint data as part of their hospital performance improvement programs and, most recently, in pay-for-performance contracting.

Next Steps

New measures will be added to

CheckPoint over the next 2 years (Table 2). To determine what information is added to CheckPoint, areas of interest and potential measures are first identified and evaluated by a technical group, the Measures Team. This process can take up to 12 months to gather information and obtain input from a variety of interested groups. An objective assessment of potential measures against predetermined market and usability criteria is included in this process. The Measures Team recommendation is then reviewed

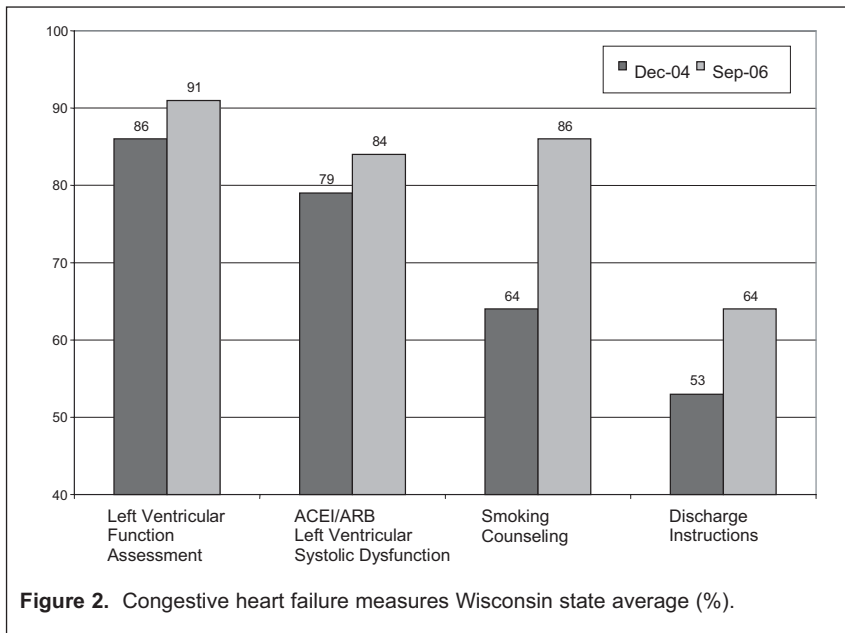


Figure 2. Congestive heart failure measures Wisconsin state average (%).

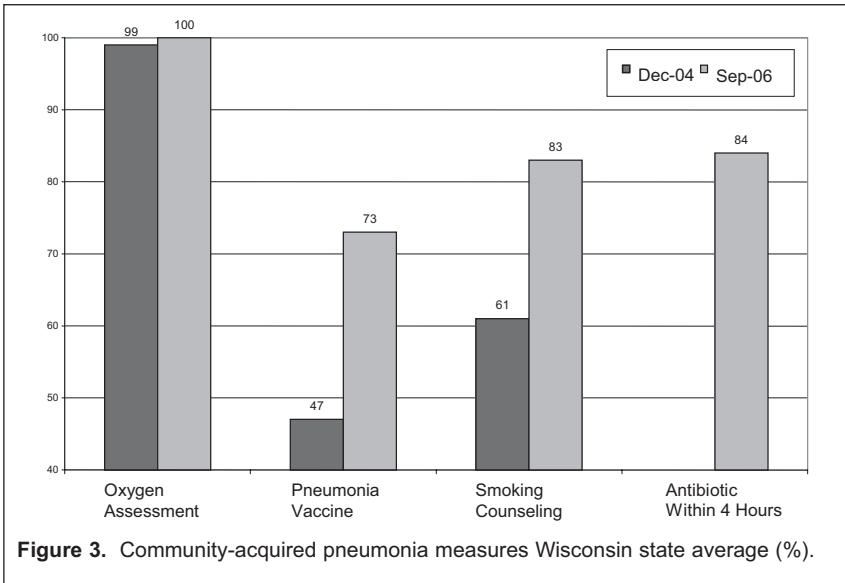


Figure 3. Community-acquired pneumonia measures Wisconsin state average (%).

and endorsed by the Wisconsin Quality Steering Committee. This committee is comprised of Wisconsin physicians, nurses, insurers, employers, hospital administrators, researchers, and consumer representatives whose purpose is to ensure that, over time, CheckPoint meets a variety of consumer information needs. Finally, the WHA Board of Directors reviews and approves all new measures.

Measures approved by the WHA Board of Directors in October 2006 will expand the information available on acute myocardial infarction, conges-

tive heart failure, community-acquired pneumonia care, and prevention of surgical infections. Furthermore, this data will be aggregated using the Center for Medicare and Medicaid Services (CMS) Appropriate Care Measure methodology to create summary indexes. Each index will represent the percent of patients that received all of the care for which they were eligible based on the subset of measures included in the index. This format will assist hospitals in evaluating their care by clinical line. Hospitals will also be able to answer consumers' ques-

tions such as, "How does my hospital perform in taking care of patients that have experienced a heart attack?" Other measures will be added to CheckPoint that provide information on the volume, utilization, and mortality rate of select diagnoses and procedures using the Agency for Health Care Research and Quality (AHRQ) Inpatient Quality Indicators. In late 2007, patient experience of care results will appear on the Web site. Finally, a new partnership between CheckPoint and PeriData.net will explore the feasibility of adding perinatal measures for public reporting.

Emerging Themes

Purchaser interest in hospital quality, safety, and cost information continues to grow. The CMS now includes performance reporting in their hospital reimbursement formula, increasing the requirements annually, as well as the percent of payment at risk. Many national and state health insurers, as well as employer alliances are implementing pay-for-performance models that include a variety of hospital performance measures. In addition, the JCAHO and other accreditation/award programs are developing new measures that will be included in future programs. While demand is increasing, coordination of the information used to evaluate performance is low. Hospitals today are dedicating more resources than ever before to collect and analyze data aimed at improving their care processes. Although these market forces are expected to create a higher quality, safer, more efficient health care system in the long run, prioritization and collaboration is needed to assure that hospitals are dedicating their resources in a manner that is beneficial to the communities they serve. CheckPoint provides a platform for all Wisconsin hospitals, regardless of size or location, to report performance information that is of interest to many purchasers. Future

Table 2. Approved Future CheckPoint Measures

| | | |
|--|--|---|
| <p>Acute Myocardial Infarction</p> <ol style="list-style-type: none"> 1. PCI within 90 minutes of arrival 2. Thrombolytic medication within 30 minutes of arrival | <ol style="list-style-type: none"> 23. Pancreatic resection 24. Percutaneous transluminal coronary angioplasty | <p><i>Hip surgery</i></p> <ol style="list-style-type: none"> 38. Appropriate prophylactic antibiotic selection |
| <p>Community-Acquired Pneumonia</p> <ol style="list-style-type: none"> 3. Appropriate initial antibiotic 4. Blood culture performed prior to first antibiotic received in the hospital 5. Influenza screen and vaccination given | <p>Patient Experience of Care – H-CAHPS</p> <ol style="list-style-type: none"> 25. Communication with doctors 26. Communication with nurses 27. Responsiveness of hospital staff 28. Cleanliness and noise level of the physician environment 29. Pain control 30. Communication about medications 31. Discharge information | <p><i>Knee surgery</i></p> <ol style="list-style-type: none"> 39. Appropriate prophylactic antibiotic selection <p><i>Hysterectomy</i></p> <ol style="list-style-type: none"> 40. Appropriate prophylactic antibiotic selection |
| <p>Indexes (Appropriate Care Measures)</p> <ol style="list-style-type: none"> 6. Heart Attack Index 7. Congestive Heart Failure Index 8. Pneumonia Index 9. Surgical Infection Prevention Index | <p>Perinatal Care Measures</p> <p>To be determined</p> | <p><i>Abdominal surgery</i></p> <ol style="list-style-type: none"> 41. Appropriate prophylactic antibiotic selection <p><i>Vascular surgery</i></p> <ol style="list-style-type: none"> 42. Prophylactic antibiotic within 1 hour of incision 43. Appropriate prophylactic antibiotic selection 44. Prophylactic antibiotic discontinued within 48 hours after surgery |
| <p>Mortality Rates - Diagnoses</p> <ol style="list-style-type: none"> 10. Acute myocardial infarction 11. Acute myocardial infarction without transfer cases 12. Acute stroke 13. Congestive heart failure 14. Gastrointestinal (GI) hemorrhage 15. Hip fracture 16. Pneumonia | <p>Surgical Infection Prevention</p> <p><i>All surgeries (cardiac, colon, hip, hysterectomy, knee, vascular)</i></p> <ol style="list-style-type: none"> 32. Prophylactic antibiotic within 1 hour of incision 33. Appropriate prophylactic antibiotic selection 34. Prophylactic antibiotic discontinued within 48 hours after surgery <p><i>Cardiac surgery including CABG</i></p> <ol style="list-style-type: none"> 35. Prophylactic antibiotic within 1 hour of incision 36. Appropriate prophylactic antibiotic selection 37. Prophylactic antibiotic discontinued within 48 hours after surgery | <p>Utilization</p> <ol style="list-style-type: none"> 45. Incidental appendectomy among the elderly |
| <p>Mortality Rates - Procedures</p> <ol style="list-style-type: none"> 17. Abdominal aortic aneurysm repair 18. Coronary artery bypass graft 19. Carotid endarterectomy 20. Craniotomy 21. Esophageal resection 22. Hip replacement | | <p>Volume</p> <ol style="list-style-type: none"> 46. Abdominal aortic aneurysm repair 47. Carotid endarterectomy 48. Coronary artery bypass graft 49. Esophageal resection 50. Pancreatic resection 51. Percutaneous transluminal coronary angioplasty |

additions and changes to CheckPoint will take into consideration the information needs of key health care constituents.

National and state interest in physician-level reporting and continuum of care efficiency evaluation has become more prominent. At the same time, hospitals continue to partner with physicians on inpatient quality improvement initiatives. Great effort must be exerted to assure that the priorities defined by new proposals are complimentary, not competitive. Physicians must take a leadership role in defining future priorities, selecting and validating appropriate measures, re-engineering care processes, and adapting technologies so that future systems of care can emerge that positively impact health care outcomes.

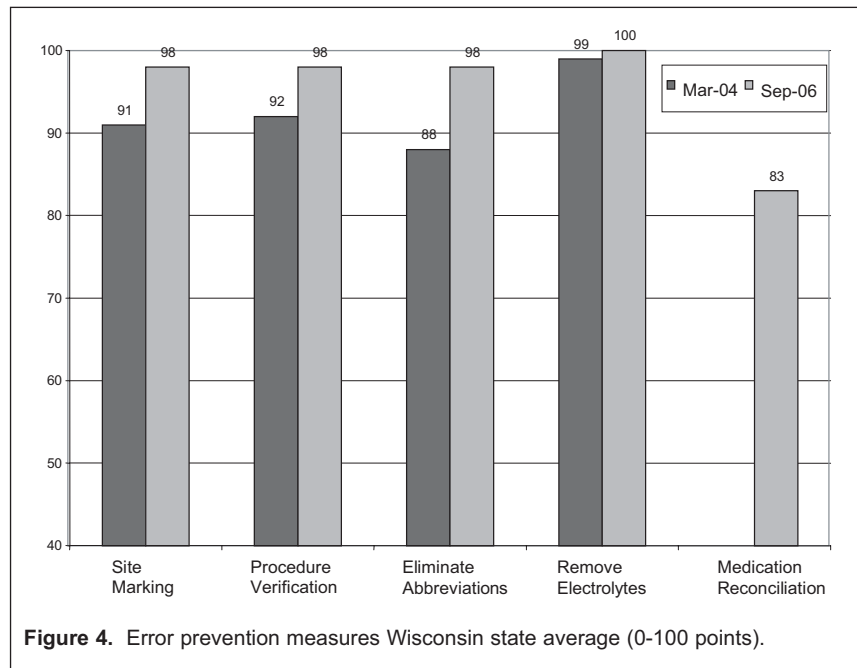


Figure 4. Error prevention measures Wisconsin state average (0-100 points).

Wisconsin Medical Journal

The mission of the *Wisconsin Medical Journal* is to provide a vehicle for professional communication and continuing education of Wisconsin physicians.

The *Wisconsin Medical Journal* (ISSN 1098-1861) is the official publication of the Wisconsin Medical Society and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor is responsible for overseeing the production, business operation and contents of the *Wisconsin Medical Journal*. The editorial board, chaired by the medical editor, solicits and peer reviews all scientific articles; it does not screen public health, socioeconomic or organizational articles. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *Wisconsin Medical Journal* nor the Society take responsibility. The *Wisconsin Medical Journal* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

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