

**PCI-CAMPOS
Advisory Oversight
Committee**

December 11th, 2014

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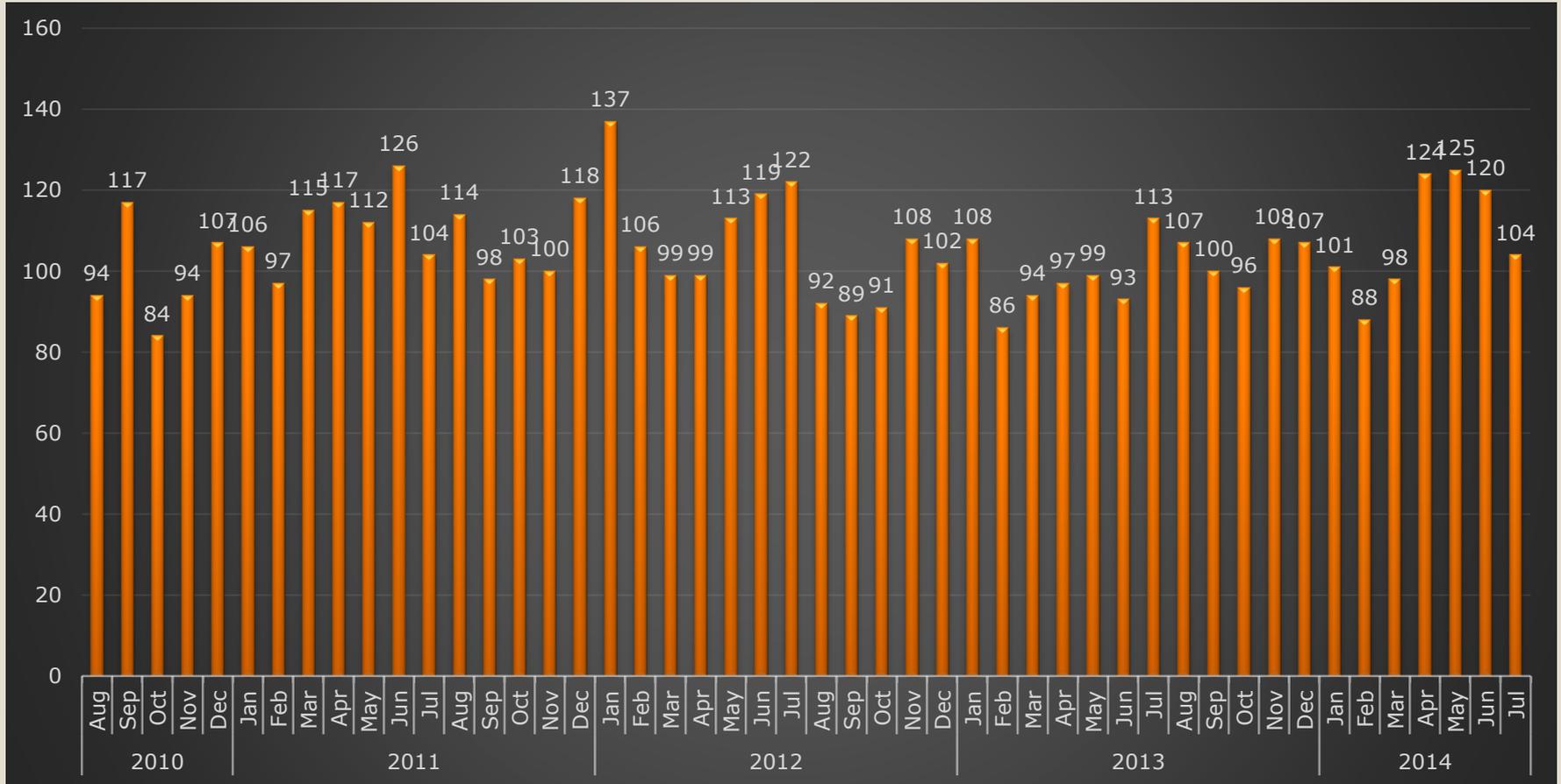
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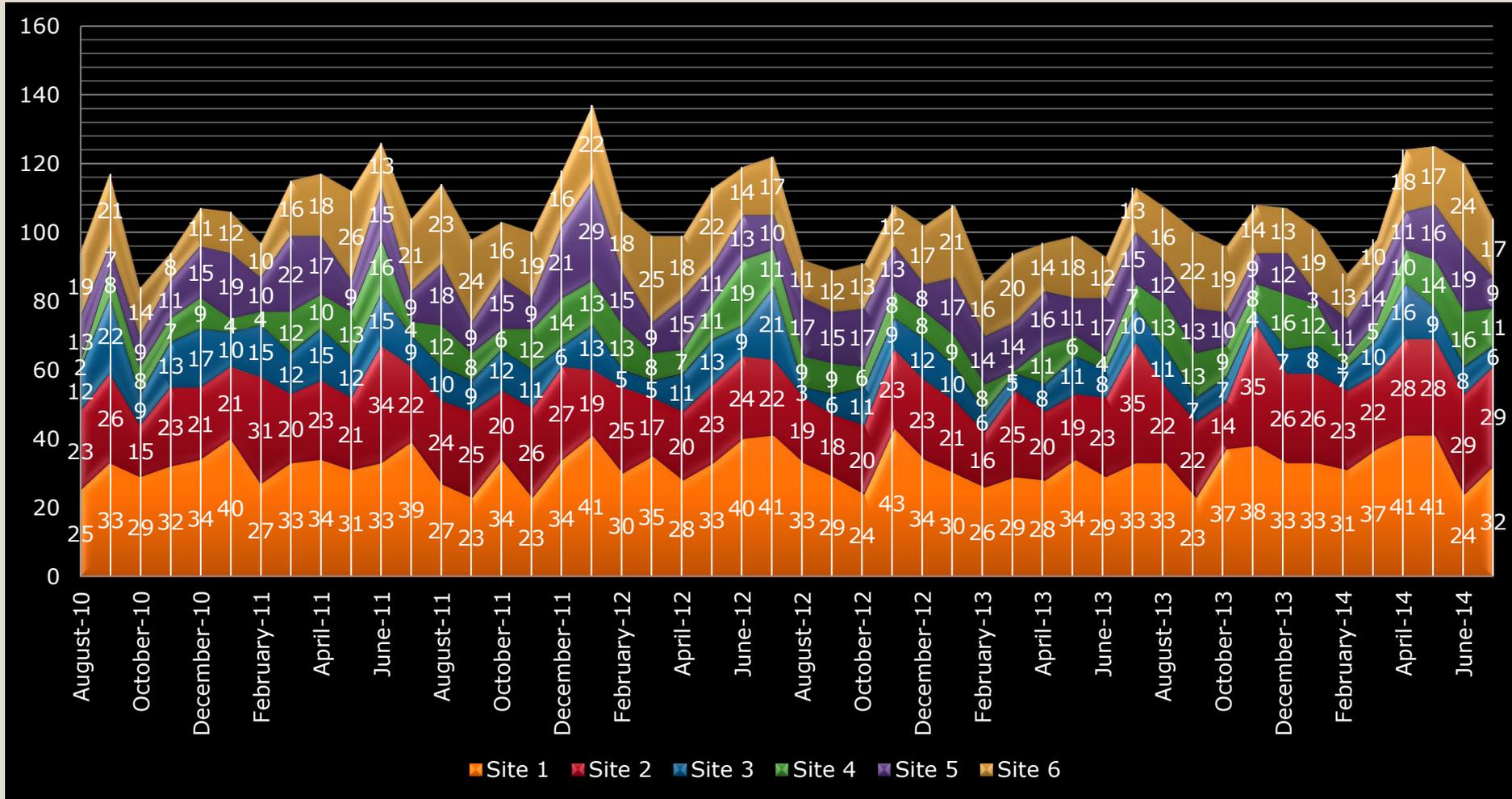
Total Enrollment

| PCI CAMPOS | Year 1 08/01/2010- 07/31/2011 | Year 2 08/01/2011- 07/31/2012 | Year 3 08/01/2012- 07/31/2013 | Year 4 08/01/2013- 07/31/2014 | Totals |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------|
| STEMI | 436 | 401 | 371 | 431 | 1639 |
| NSTEMI | 322 | 365 | 345 | 352 | 1384 |
| Unstable Angina | 269 | 326 | 264 | 265 | 1124 |
| Stable Angina | 199 | 174 | 153 | 188 | 714 |
| No symptoms, No Angina | 46 | 53 | 35 | 39 | 173 |
| Symptoms Unlikely to be Ischemic | 1 | 9 | 4 | 3 | 17 |
| Total | 1273 | 1328 | 1172 | 1278 | 5051 |

Total Enrollment Per Month (08/01/2010-07/31/2014)



Monthly Enrollment: Hospitals (08/01/2010-07/31/2014)



STEMI Enrollment Year 1-4

| Site | Year 1 | | Year 2 | | Year 3 | | Year 4 | |
|------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|
| | Total PCIs 08/01/2010 | STEMI's 08/01/2010 | Total PCIs 08/01/2011 | STEMI's 08/01/2011 | Total PCIs 08/01/2012 | STEMI's 08/01/2012 | Total PCIs 08/01/2013 | STEMI's 08/01/2013 |
| | - 07/31/2011 | - 07/31/2011 | - 07/31/2012 | - 07/31/2012 | - 07/31/2013 | - 07/31/2013 | - 07/31/2014 | - 07/31/2014 |
| Pilot-Hospital 1 | 390 | 73 | 389 | 56 | 372 | 66 | 403 | 68 |
| Pilot-Hospital 2 | 280 | 108 | 272 | 86 | 262 | 93 | 304 | 112 |
| Pilot Hospital 3 | 161 | 69 | 125 | 62 | 99 | 42 | 100 | 49 |
| Pilot-Hospital 4 | 97 | 22 | 134 | 29 | 86 | 24 | 130 | 46 |
| Pilot Hospital 5 | 156 | 49 | 174 | 54 | 174 | 43 | 139 | 38 |
| Pilot-Hospital 6 | 189 | 115 | 234 | 114 | 179 | 103 | 202 | 118 |

Hospital 1 Enrollment

| Hospital 1 | Year 1 08/01/2010- 07/31/2011 | Year 2 08/01/2011- 07/31/2012 | Year 3 08/01/2012- 07/31/2013 | Year 4 08/01/2013- 07/31/2014 | Totals |
|-----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------|
| STEMI | 73 | 56 | 66 | 68 | 263 |
| NSTEMI | 106 | 97 | 104 | 76 | 383 |
| Unstable Angina | 91 | 117 | 92 | 106 | 406 |
| Stable Angina | 97 | 91 | 90 | 130 | 408 |
| No Sxs, No Angina | 23 | 25 | 17 | 23 | 88 |
| Sxs Unlikely to be Ischemic | 0 | 3 | 3 | 0 | 6 |
| Total Procedures | 390 | 389 | 372 | 403 | 1554 |

Hospital 2 Enrollment

| Hospital 2 | Year 1 08/01/2010- 07/31/2011 | Year 2 08/01/2011- 07/31/2012 | Year 3 08/01/2012- 07/31/2013 | Year 4 08/01/2013- 07/31/2014 | Totals |
|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------|
| STEMI | 108 | 86 | 93 | 112 | 399 |
| NSTEMI | 61 | 97 | 78 | 111 | 347 |
| Unstable Angina | 72 | 73 | 63 | 62 | 270 |
| Stable Angina | 28 | 11 | 17 | 13 | 69 |
| No Sxs, No Angina | 11 | 5 | 11 | 6 | 33 |
| Sxs Unlikely to be Ischemic | 0 | 0 | 0 | 0 | 0 |
| Total Procedures | 280 | 272 | 262 | 304 | 1118 |

Hospital 3 Enrollment

| Hospital 3 | Year 1 08/01/2010- 07/31/2011 | Year 2 08/01/2011- 07/31/2012 | Year 3 08/01/2012- 07/31/2013 | Year 4 08/01/2013- 07/31/2014 | Totals |
|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------|
| STEMI | 69 | 62 | 42 | 49 | 222 |
| NSTEMI | 40 | 25 | 27 | 19 | 111 |
| Unstable Angina | 37 | 24 | 19 | 20 | 100 |
| Stable Angina | 12 | 10 | 9 | 9 | 40 |
| No Sxs, No Angina | 3 | 4 | 1 | 2 | 10 |
| Sxs Unlikely to be Ischemic | 0 | 0 | 1 | 1 | 2 |
| Total Procedures | 161 | 125 | 99 | 100 | 485 |

Hospital 4 Enrollment

| Hospital 4 | Year 1 08/01/2010- 07/31/2011 | Year 2 08/01/2011- 07/31/2012 | Year 3 08/01/2012- 07/31/2013 | Year 4 08/01/2013- 07/31/2014 | Totals |
|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------|
| STEMI | 22 | 29 | 24 | 46 | 121 |
| NSTEMI | 32 | 47 | 36 | 53 | 168 |
| Unstable Angina | 19 | 33 | 24 | 17 | 93 |
| Stable Angina | 19 | 10 | 1 | 9 | 39 |
| No Sxs, No Angina | 4 | 9 | 1 | 5 | 19 |
| Sxs Unlikely to be Ischemic | 1 | 6 | 0 | 0 | 7 |
| Total Procedures | 97 | 134 | 86 | 130 | 447 |

Hospital 5 Enrollment

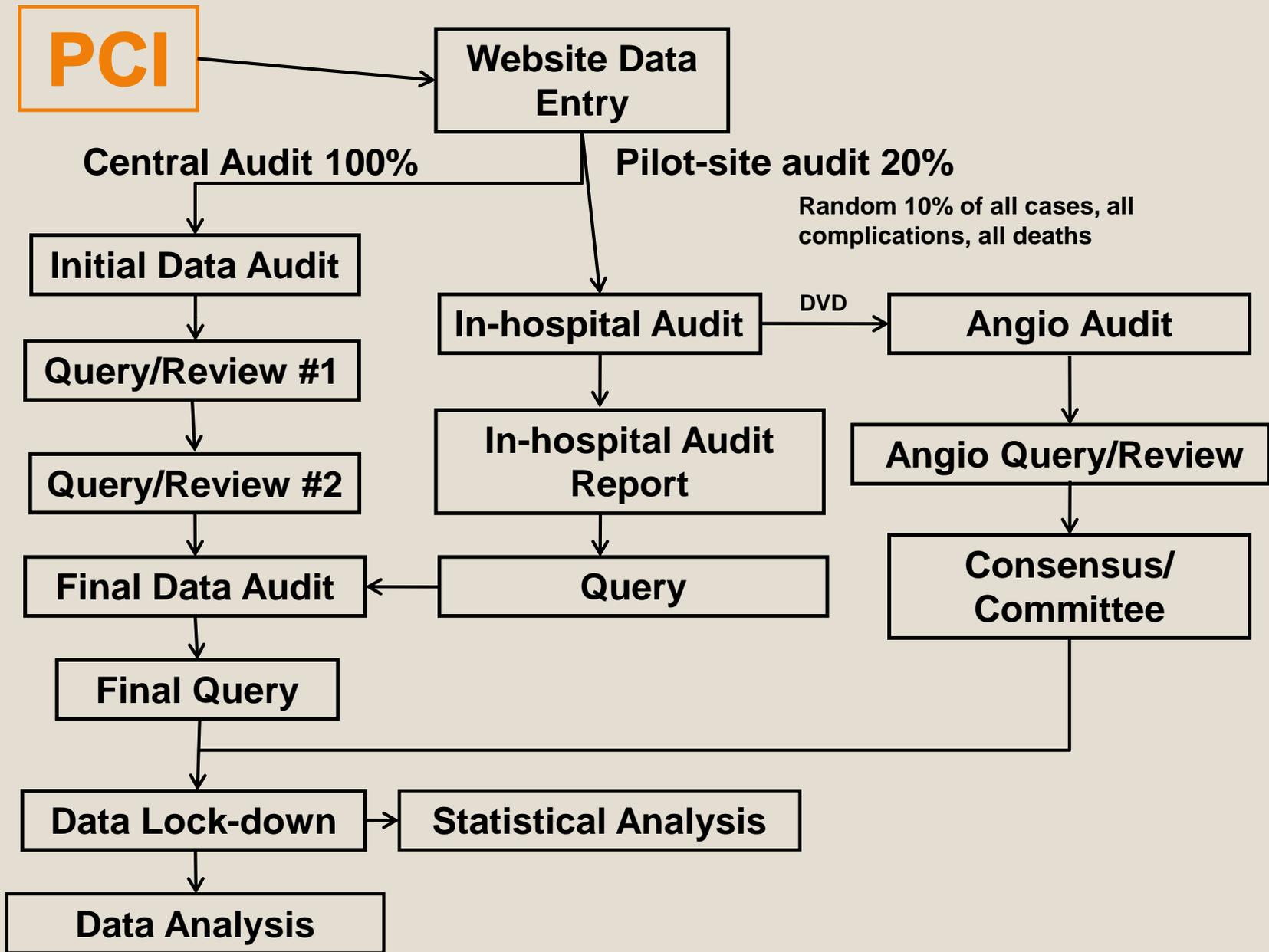
| Hospital 5 | Year 1 08/01/2010- 07/31/2011 | Year 2 08/01/2011- 07/31/2012 | Year 3 08/01/2012- 07/31/2013 | Year 4 08/01/2013- 07/31/2014 | Totals |
|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------|
| STEMI | 49 | 54 | 43 | 38 | 184 |
| NSTEMI | 47 | 49 | 69 | 58 | 223 |
| Unstable Angina | 25 | 46 | 39 | 28 | 138 |
| Stable Angina | 30 | 16 | 19 | 12 | 77 |
| No Sxs, No Angina | 5 | 9 | 4 | 2 | 20 |
| Sxs Unlikely to be Ischemic | 0 | 0 | 0 | 1 | 1 |
| Total Procedures | 156 | 174 | 174 | 139 | 643 |

Hospital 6 Enrollment

| Hospital 6 | Year 1 08/01/2010- 07/31/2011 | Year 2 08/01/2011- 07/31/2012 | Year 3 08/01/2012- 07/31/2013 | Year 4 08/01/2013- 07/31/2014 | Total |
|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------|
| STEMI | 115 | 114 | 103 | 118 | 450 |
| NSTEMI | 36 | 50 | 31 | 35 | 152 |
| Unstable Angina | 25 | 33 | 27 | 32 | 117 |
| Stable Angina | 13 | 36 | 17 | 15 | 81 |
| No Sxs, No Angina | 0 | 1 | 1 | 1 | 3 |
| Sxs Unlikely to be Ischemic | 0 | 0 | 0 | 1 | 1 |
| Total Procedures | 189 | 234 | 179 | 202 | 804 |

Website Update

- Log in – log out issue: must click “log out” button not the “x” .
- Data complete and locked down for all patients
 - 08/01/2010-07/31/2014
- Internet Explorer browser compatibility issue
 - Alternate browsers: Mozilla Firefox, Google Chrome



Velos Servers

SAS Computer

Xcelera Server

Initial Central Audit*

(08/01/2010-07/31/2014)

| Pilot Site | Procedures Audited |
|------------|--------------------|
| Hospital 1 | 1554 |
| Hospital 2 | 1118 |
| Hospital 3 | 485 |
| Hospital 4 | 447 |
| Hospital 5 | 643 |
| Hospital 6 | 804 |
| Total | 5051 |

- Completeness check
- Internal consistency (arrival date/procedure date, CHF, troponin/MI, PCI-status, CABG/graft, CTO/STEMI, appropriate meds)
- NCDR® definitions compliance

*Audits performed on database entries

Pilot-site Audits*

(08/01/2010-07/31/2014)

| Pilot Site | Procedures Audited |
|------------|--------------------|
| Hospital 1 | 281 |
| Hospital 2 | 239 |
| Hospital 3 | 102 |
| Hospital 4 | 102 |
| Hospital 5 | 126 |
| Hospital 6 | 209 |
| Total | 1059 |

*Audits performed in-hospital plus angio film review

Angiographic Audit: Diagnostic

- IABP or other mechanical ventricular support
- Diagnostic cath (and/or left heart cath) done
- Diagnostic cath status (elective, urgent, emergent, salvage)
- Coronary anatomy: % stenosis in ≥ 2 mm vessels and grafts
 - LM
 - Prox. LAD
 - Mid/Distal LAD, diag. branches
 - CIRC, OMs, LPDA, LPL branches
 - RCA, RPDA, RPL, AM branches
 - Ramus

Angiographic Audit: PCI

- Segment number of PCI coronary artery
- Culprit Lesion,
- Stenosis immediately prior to RX
 - If 100%: CTO
 - If 40-70%: IVUS
 - If 40-70%: FFR
 - If Yes: Ratio
- Pre-procedure TIMI Flow
- Prev. treated lesion
- Lesion in graft
- Lesion complexity
- Lesion length
- Thrombus present

Lesion Complexity

| | |
|-----------------------|---|
| Non-High/Non-C Lesion | <p>Non-high/non-C lesions are considered Type A or B lesions. They can be characterized as follows:</p> <p>Low Risk or Type A lesions: Discrete (<10 mm length) Concentric Readily accessible Non-angulated segment <45 degrees Smooth contour Little or no calcification Less than totally occlusive Not ostial in location No major branch involvement Absence of thrombus</p> <p>Medium Risk (Type B1) lesions: Tubular (10-20 mm length) Eccentric Moderate tortuosity of proximal segment Moderately angulated segment, 45-90 degrees Irregular contour Moderate to heavy calcification Ostial in location Bifurcation lesions requiring double guidewires Some thrombus present Total occlusion <3 months old</p> <p>Medium Risk (Type B2 lesions): Two or more "B" characteristics.</p> |
|-----------------------|---|

| | |
|---------------|--|
| High/C Lesion | <p>Descriptions of a High Lesion Risk (C Lesion): Diffuse (length > 2cm) Excessive tortuosity of proximal segment Extremely angulated segments > 90 degrees Total occlusions > 3 months old and/or bridging collaterals Inability to protect major side branches Degenerated vein grafts with friable lesions</p> |
|---------------|--|

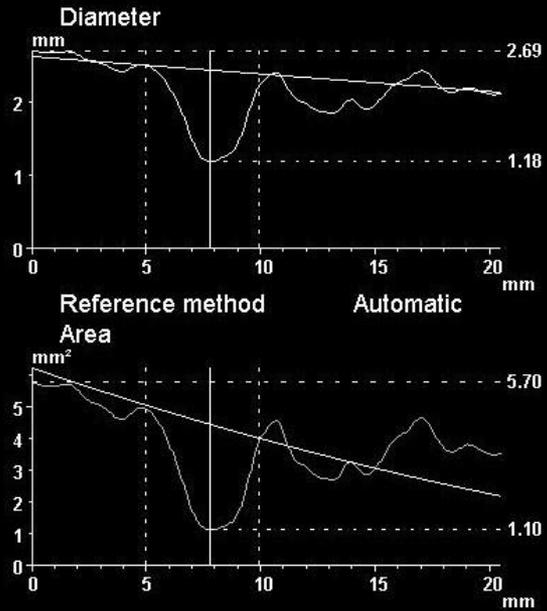
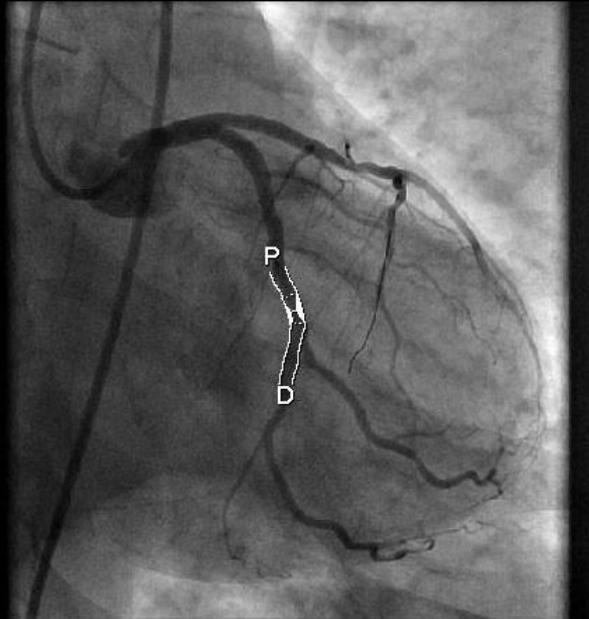
*NCDR® CathPCI Registry® v4.4 Coder's Data Dictionary, © 2008, American College of Cardiology Foundation

Angiographic Audit: PCI

- Bifurcation lesion
 - Guidewire across lesion
 - Stenosis post-procedure
 - Post-procedure TIMI flow
 - Device deployed
 - Intracoronary devices used
 - PCI complication: Significant dissection or perforation
 - LVEF (if documented)
-
- Quantitative Coronary Analysis (QCA-Xcelera R3.1L1, 3.1.1.422-2009)

Angiographic Audit: QCA

Automatic Reference Obstruction Analysis



| Stenosis | (%) |
|-------------|-----|
| %Diameter | 52 |
| %Area(circ) | 17 |

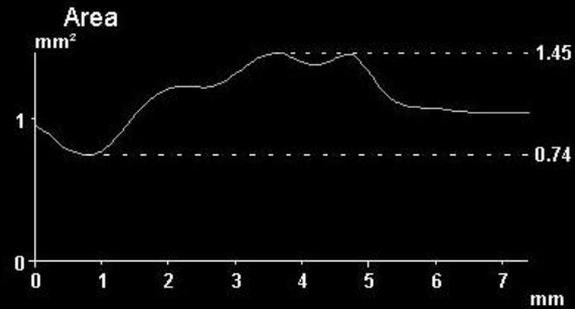
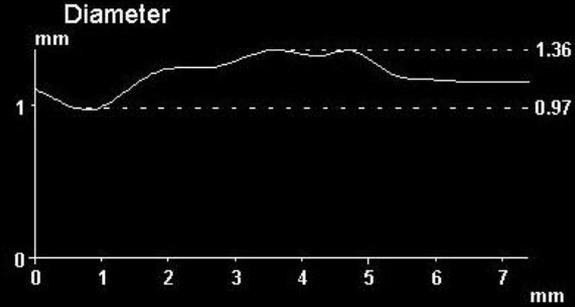
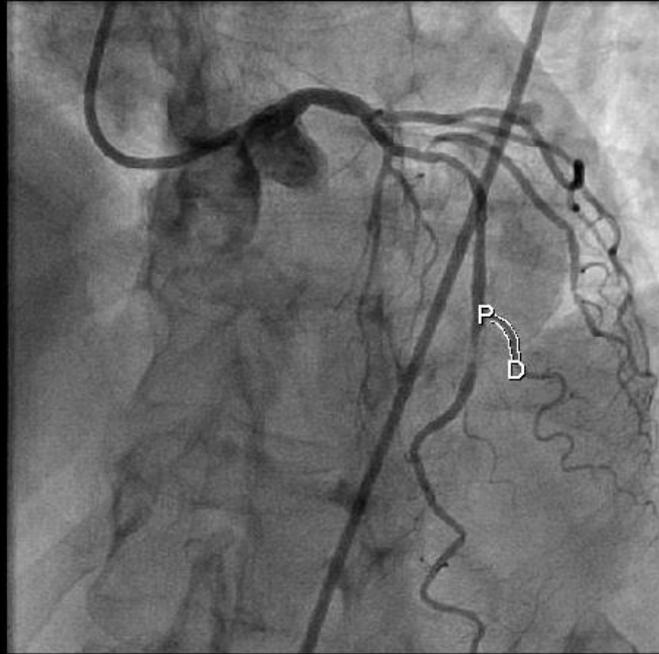
Obstruction Segment

| | Diameter (mm) | Area(circ) (mm²) |
|--------------------|---------------|------------------|
| Lesion | 1.18 | 1.10 |
| Ref | 2.45 | 4.70 |
| Mean | 1.74 | 2.55 |
| Res. prox. | 4.96 mm | |
| Obstruction Length | 4.96 mm | |
| Plaque A | 3.31 mm | |
| Plaque Symmetry | 0.61 | |

Series - Frame 1 / 1
 Rot / Ang -6.95 ; -26.09 °
 Segment Name
 Study
 Intervention
 Cal factor 0.2043 mm/pix
 Cal object 6.00 French Catheter

Angiographic Audit: QCA

Total Analyzed Segment



| | Diameter (mm) | Area(circ) (mm ²) |
|------|------------------|----------------------------------|
| Min | 0.97 | 0.74 |
| Max | 1.36 | 1.45 |
| Mean | 1.20 | 1.14 |
| Sdev | 0.11 | 0.21 |

Series - Frame 1 / 1
Rot / Ang 24.80 ; 28.43 °

Segment Name
Study
Intervention

Cal factor 0.1904 mm/pix
Cal object 6.00 French Catheter

Segment length 7.39 mm

Contour corrected 0.00 % left
0.00 % right
0.00 % total

Protocol Violations

- No operator violations

Compassionate Use Criteria

- Coma on presentation
- Use of ventricular assist device prior to PCI
- CPR at start of procedure
- Entered for procedures that were performed as of 07/01/2011-present

Compassionate Use

File Edit View Favorites Tools Help

Patient Form

Current Page: Patient Form

velos

Patient Search Study Patients Report Central

Homepage Personalize Account Manage Patients Report Central Ad-Hoc Queries Help Logout

Demographics Patient Profile Protocols Reports Appendix

Pat.ID: 654321 Age: 90 years Gender: Pat.Name: test formtwo Org: PCI-Training

NO

Did the patient meet compassionate use criteria? Yes No

Was the patient in a coma (Glasgow <7) on presentation? Yes No

Was cardiopulmonary bypass (CPB), extracorporeal membrane oxygenation (ECMO), or percutaneous ventricular assist device (PVAD) begun before PCI? Yes No

Was patient receiving CPR at the start of PCI? Yes No

Current User: Melanie Aryana

System Timezone: (GMT-08:00) Pacific Time (US and Canada) Tijuana

Form Status* Work In Progress e-Signature * Submit

Form Version Number: 5

Compassionate Use Criteria

07/01/2011-07/31/2014

| | Total entered | CU section Completed | Pt met CU criteria | Coma | CPB/ECMO/PVAD | CPR |
|--------|---------------|----------------------|--------------------|------|---------------|-----|
| Site 1 | 1203 | 1203 | 4 | 4 | 0 | 2 |
| Site 2 | 860 | 860 | 20 | 19 | 0 | 5 |
| Site 3 | 334 | 334 | 3 | 3 | 0 | 0 |
| Site 4 | 354 | 354 | 5 | 4 | 0 | 1 |
| Site 5 | 497 | 495 | 9 | 9 | 0 | 2 |
| Site 6 | 636 | 635 | 14 | 14 | 0 | 5 |
| Total | 3884 | 3881 | 55 | 53 | 0 | 15 |

Compassionate use (07/01/2011-07/31/2014)

Massachusetts*

PCI-CAMPOS**

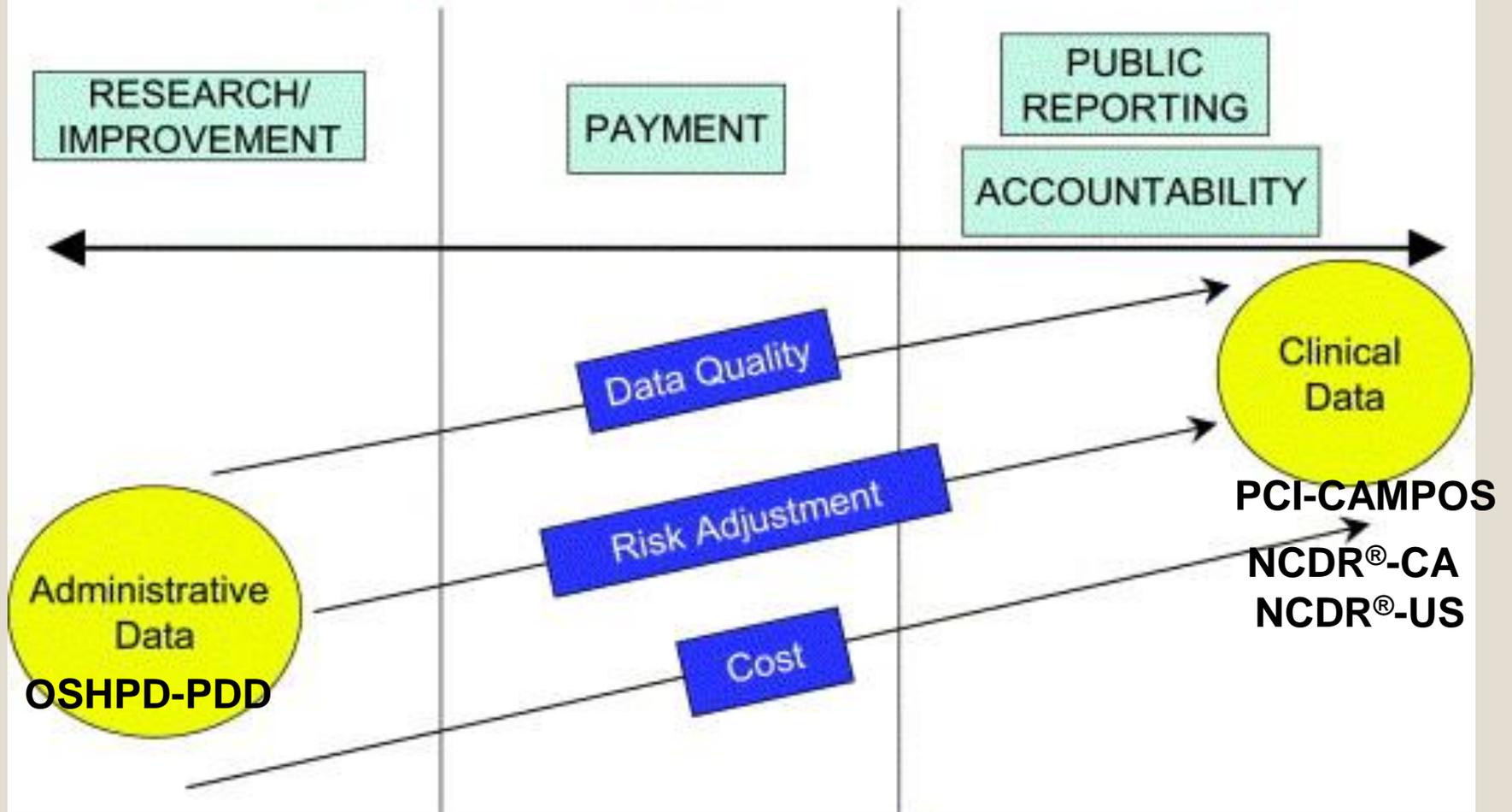
| | Total | CU | Total | CU |
|-------------------|-------|-------|-------|-------|
| Procedure success | 94.2% | 79.2% | 83.3% | 66.7% |
| Mortality | 4.5% | 69.8% | 5.3% | 54.5% |

*Resnic et al., J Am Coll Cardiol 2011; 57(8), 904-11 (Total= STEMI or cardiogenic shock, CU= Coma, LV assist, CPR, Procedural success= not specified)

**PCI CAMPOS (Total= STEMI, CU= Coma, LV assist, CPR, Procedural success= residual stenosis <20% AND TIMI-3 post PCI flow)

What is the purpose of quality measurement?

The stakes get higher as the purpose moves towards accountability



Quality Metrics I

Post-Operative Medicine Use (08/01/2010-07/31/2014)

➤ Aspirin prescribed at discharge:

Pilot 98.7%

NCDR®-US 98.8% (97.3-99.7%)

➤ P2Y12 Inhibitor/Thienopyridines

prescribed at discharge (pts with stents):

Pilot **93.5%**

NCDR®-US 99.5% (98.6-100%)

➤ Statins prescribed at discharge:

Pilot 97.2%

NCDR®-US 95.7% (91.7-98.0%)

Quality Metrics II (08/01/10-07/31/14)

| Hospital | 1 | 2 | 3 | 4 | 5 | 6 | Total |
|---|------------|---------|---------|---------|---------|---------|------------|
| # of Elective PCI pts. (excl. pts. with ACS) | 456 | 93 | 46 | 56 | 80 | 84 | 815 |
| Pts. who had a Stress Test, Imaging Study, or FFR | 308 | 64 | 39 | 40 | 54 | 75 | 580 |
| Stand. Exercise Stress Test +/indeterminant/total | 106/17/134 | 3/0/3 | 4/0/4 | 0 | 3/2/7 | 1/0/1 | 117/19/149 |
| Stress Echo +/indeterminant/total | 4/0/5 | 4/0/5 | 13/1/14 | 0/1/1 | 6/0/7 | 23/2/26 | 50/4/58 |
| SPECT +/indeterminant/total | 145/5/169 | 50/0/53 | 17/1/21 | 28/8/39 | 35/1/39 | 33/9/48 | 308/24/369 |
| CMR +/indeterminant/total | 0 | 1/0/1 | 0 | 0 | 0 | 1/0/1 | 2/0/2 |
| FFR (≤ 0.8 /total) | 31/35 | 3/3 | 1/2 | 0 | 0 | 0 | 35/40 |
| +stress test or imaging study/ # elective PCI* | 258/456 | 59/93 | 35/46 | 28/56 | 44/80 | 57/84 | 481/815 |
| | 56.6% | 63.4% | 76.1% | 50.0% | 55.0% | 67.9% | 59.0% |

* NCDR®-US 2014Q1 : median, 25th – 75th percentile: 66.9%, 55.6 – 77.8%

Quality Metrics III (08/01/10-07/31/14)

| Hospital | 1 | 2 | 3 | 4 | 5 | 6 | Total | 25 th – 75 th | NCDR® -US |
|--|------|------|------|------|------|------|-------|-------------------------------------|--------------|
| Median time to immediate PCI for STEMI patients (minutes) | 68 | 59 | 68 | 67 | 70 | 65 | 65 | 66.0-54.0 | 60.0 |
| Proportion of STEMI patients receiving immediate PCI within 90 minutes (%) | 96.1 | 93.7 | 95.5 | 90.2 | 83.3 | 93.5 | 92.7 | 89.7-98.1 | 94.7 |
| Emergency CABG (%) | 0.3 | 0.1 | 0.2 | 0.2 | 0 | 1.1 | 0.3 | 0.4-0.0 | 0.1 |

Quality Metrics IV (08/01/10-07/31/14)

| Hospital | 1 | 2 | 3 | 4 | 5 | 6 | Total | 25 th -75 th | NCDR®-US |
|---|------|------|------|------|------|------|-------|------------------------------------|----------|
| Post procedure stroke (%) | 0.2 | 0.1 | 0.2 | 0.2 | 0.5 | 0.8 | 0.3 | 0.3-0.0 | 0.0 |
| Composite: Death, emergency CABG, stroke | 2.1% | 2.3% | 2.9% | 2.2% | 2.8% | 5.6% | 2.9% | 3.5-1.8 | 2.6 |
| | 32 | 26 | 14 | 10 | 18 | 45 | 145 | | |
| Median post-proc LOS for PCI with STEMI (days) | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2.8-1.8 | 2.6 |
| Median post-proc LOS for PCI with no STEMI (days) | 1 | 1 | 1 | 1 | 1 | 2 | 1 | NA | NA |
| Creatinine assessed pre-and post PCI (%) | 97.7 | 98.6 | 92.7 | 89.2 | 93.2 | 84.0 | 93.9 | 81.6-95.6 | 90.5 |
| Transfusion of whole blood or RBCs (%) | 2.0 | 4.6 | 1.3 | 2.8 | 2.0 | 5.1 | 3.0 | 2.1-0.5 | 1.2 |

Quality Metrics V (08/01/10-07/31/14)

| Hospital | 1 | 2 | 3 | 4 | 5 | 6 | Total | 25 th -75 th | NCDR®-US |
|--|--------------------|---------------|--------------|---------------|-------------|------------|--------------------|------------------------------------|----------------------|
| Intermediate stenosis lesions (40-70%): IVUS (% of patients) | 6.5 26/40 1 | 4.2 2/48 | 12.5 3/24 | 14.9 10/67 | 0 0/33 | 0 0/125 | 5.9 41/6 98 | NA | NA |
| Intermediate stenosis lesions (40-70%): FFR (% of patients) | 15.2 61/40 1 | 25.0 12/48 | 37.5 9/24 | 7.5 5/67 | 6.1 2/33 | 0 0/125 | 12.8 89/6 98 | NA | NA |
| Biomarkers assessed post procedure for elect. inpatients (%) | 90.4 | 97.2 | 95.0 | 16.1 | 61.1 | 14.0 | 73.3 | 10.4-66.7 | 27.2 |
| Post procedure MI (%) | 6.0 | 5.2 | 33.3 | 6.3 | 17.4 | 0.7 | 7.6 | ≥90%: 4.1-0.0 ≤90%: 1.4-0.0 | ≥90%:1.3 ≤90%:0.0 |

PCI Success (08/01/10-07/31/14)

| Hospital | 1 | 2 | 3 | 4 | 5 | 6 | Total |
|----------------------------------|------|------|------|------|------|------|-------|
| Number of patients | 1554 | 1118 | 485 | 447 | 643 | 804 | 5051 |
| Number of lesions treated | 2559 | 1351 | 610 | 544 | 783 | 1062 | 6909 |
| Guidewire across | 2507 | 1340 | 598 | 533 | 753 | 1034 | 6765 |
| Post procedure stenosis <20% (%) | 91.9 | 97.7 | 89.1 | 92.3 | 95.5 | 86.7 | 92.4 |
| Post procedure stenosis ≥20% (%) | 8.1 | 2.3 | 10.9 | 7.7 | 4.5 | 13.3 | 7.6 |
| Post procedure TIMI 3 (%) | 96.1 | 95.5 | 93.6 | 95.3 | 96.1 | 92.6 | 95.2 |
| <20% stenosis AND TIMI 3 (%) | 90.0 | 94.2 | 85.3 | 91.0 | 92.8 | 83.3 | 89.8 |

Quality Metrics: Definitions*

Aspirin- Proportion of patients with aspirin prescribed at discharge: Proportion of patients (without a documented contraindication) with aspirin prescribed at discharge.

P2Y12 Inhibitors/Thienopyridines- Proportion of patients with a P2Y12 inhibitor prescribed at Discharge: Proportion of patients (without a documented contraindication) with a stent implanted that had a P2Y12 Inhibitors/Thienopyridine prescribed at discharge.

Statins- Statins prescribed at discharge: Proportion of patients (without a documented contraindication) prescribed a statin at discharge.

+stress test/# elective PCI- Proportion of elective PCIs with prior positive stress or imaging Study: Proportion of elective PCI procedures (excluding patients with ACS) with an antecedent stress or imaging study with a positive result (suggestive of ischemia) or with a fractional flow reserve value of ≤ 0.8 during the PCI procedure.

*©2010 American College of Cardiology Foundation NCDR® CathPCI Registry®

Quality Metrics: Definitions*

Median time to immediate PCI for STEMI patients (minutes) - Median time to immediate PCI for STEMI patients (in minutes): Your hospital's median time from hospital arrival to immediate PCI for STEMI patients in minutes. Exclusions: Patients transferred in from another acute care facility; Reasons for delay does not equal none.

Proportion of STEMI patients receiving immediate PCI within 90 minutes (%)- Proportion of STEMI patients receiving immediate PCI w/in 90": Proportion of STEMI patients with a time from your hospital arrival (or subsequent ECG if ST elevation first noted on subsequent ECG) to immediate PCI ≤ 90 ". Exclusions: Patients transferred in from another acute care facility; Reasons for delay does not equal none.

Emergency CABG (%) - Proportion of PCI patients with emergency CABG: Your hospital's proportion of patients having emergency CABG (at your facility or transferred to another facility).

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Quality Metrics: Definitions*

Post procedure stroke (%) - Proportion of PCI procedures with post procedure stroke: Your hospital's proportion of patients with stroke post procedure.

Composite: Death, emergency CABG, stroke- Proportion of PCI patients with death, emergency CABG, stroke or repeat target vessel revascularization.: Your hospital's proportion of patients with death, emergency CABG, stroke or repeat target vessel revascularization post procedure up to hospital discharge. Excludes patients with stroke and an elective, urgent or salvage CABG during same admission. (PCI-CAMPOS excluding repeat target vessel revascularization)

Median post-proc LOS for PCI with STEMI (days) - Median post-procedure length of stay (in days) for PCI patients with STEMI: Your hospital's median post-procedure length of stay (in days) for PCI patients with STEMI.

Creatinine assessed pre-and post PCI (%) - Proportion of PCI procedures with creatinine assessed pre and post PCI: Proportion of PCI patients with creatinine assessed pre and post procedure. Inclusions: LOS ≥ 1 day.

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Quality Metrics: Definitions*

Transfusion of whole blood or RBCs (%) - Proportion of PCI procedures with transfusion of whole blood or RBCs: Proportion of patients who received a transfusion of whole blood or red blood cells after a PCI procedure. Inclusion: Patients with a pre-procedure hemoglobin >8 g/dL and patients with no CABG, and no other major surgery during the same admission.

Biomarkers assessed post procedure for elect. inpatients (%) - Proportion of PCI procedures with biomarkers assessed post-PCI for elective inpatients: Proportion of elective procedures with biomarkers assessed post PCI. Inclusion criteria: LOS \geq 1 day and hospital status is "not outpatient".

Post procedure MI (%) - Proportion of PCI procedures with a post procedure MI (among hospitals not/routinely collecting post-PCI biomarkers) **: Your hospital's proportion of biomarker positive, post procedure myocardial infarction. Inclusions: Submissions with \leq/\geq 90% of pts. with biomarkers coded; LOS \geq 1; Elective patients.

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Transfer Costs*

| | Hospital 1 | Hospital 2 | Hospital 3 | Hospital 4 | Hospital 5 | Hospital 6 |
|----------------|------------|-------------|------------|-------------|-------------|------------|
| Transfer 1 | 1105 | 4161 | 819 | 1045 | 600 | 897 |
| Transfer 2 | 1105 | 881 | 819 | 1045 | 888 | 1035 |
| Transfer 3 | 722 | 2502 | 819 | 1020 | 4936 | 897 |
| Transfer 4 | 722 | 3491 | - | 987 | 2335 | 897 |
| Transfer 5 | 727 | - | - | 1002 | 2335 | 1035 |
| Transfer 6 | 820 | - | - | 964 | 1265 | 380 |
| Transfer 7 | 727 | - | - | 980 | 875 | 966 |
| Transfer 8 | - | - | - | 1245 | 2226 | 897 |
| Transfer 9 | - | - | - | 1165 | - | 961 |
| Transfer 10 | - | - | - | 1065 | - | 1058 |
| Transfer 11 | - | - | - | - | - | 897 |
| Transfer 12 | - | - | - | - | - | 946 |
| Transfer 13 | - | - | - | - | - | 897 |
| Transfer 14 | - | - | - | - | - | 961 |
| Transfer 15 | - | - | - | - | - | 897 |
| Transfer 16 | - | - | - | - | - | 1035 |
| Average | 847 | 2759 | 819 | 1052 | 1932 | 916 |

***Transfers for urgent and emergent CABG**

Summary I

- CAMPOS Enrollment: 5051 (8/1/10-7/31/14)
- CAMPOS Hospital Enrollment: 86-403/yr (8/1/10-7/31/14)
- NCDR[®]-CA Enrollment: (7/1/10-6/30/14)
- CAMPOS STEMI incidence (32.4%) is than NCDR[®]-CA STEMI incidence ()
- Compassionate Use designation raises CAMPOS STEMI mortality from 5.3% to 54.5% comparable to Massachusetts

Summary II

1. CA Multivariate Risk Model:

Refined variables ,C-statistic=

2. Risk-Adjusted Overall-composite Event:

CAMPOS ,NCDR[®]-CA p=

3. Risk-Adjusted STEMI-excluded Composite Event:

CAMPOS ,NCDR[®]-CA p=

4. Risk-Adjusted Overall-composite Event Outliers:

6 CAMPOS hospitals :

NCDR[®]-CA hospitals:

CAMPOS operators:

5. Risk-Adjusted STEMI-excluded Composite Event Outliers:

6 CAMPOS hospitals :

NCDR[®]-CA hospitals:

CAMPOS operators:

Summary III

PCI-CAMPOS Success Rate: (08/01/2010-07/31/14)

- post-procedure stenosis <20%: 92.4%
- post-procedure TIMI 3 flow: 95.2%
- Post-procedure <20% stenosis AND TIMI 3: 89.8%

NCDR®-US and **PCI-CAMPOS** Hospital Volume correlation (07/01/10-07/31/14):

PCI-CAMPOS Quality Metrics: (08/01/2010-07/31/14)

- ASA, Statins, stress testing, emergent CABG, D2B, stroke, composite events, and pre/post creatinine are within **NCDR®-US** 25-75th percentile; LOS is better than the 90th percentile; P2Y12 inhibitors/thienopyridine is between the 10th-25th percentile; Transfusion and biomarker MI are outside the 10th percentile.

PCI-CAMPOS Plans

- SB 357 extension period ends 12/31/2014
- SB 906 allows pilot hospitals to continue performing elective PCI as a certified hospital until January 1, 2016. On and after January 1, 2016, pilot hospitals shall not be considered a certified hospital unless the hospital has obtained a certification under the Elective PCI program.