American College of Cardiology’s
Cardiovascular Data Registries

Data Powering Performance
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The NCDR® is the American College of Cardiology’s suite of data registries helping hospitals and private practices measure and improve the quality of cardiovascular care they provide.

Today, more than 2,400 hospitals and over 2,000 outpatient providers worldwide participate in one or more of the ACC’s eight registries, forming a comprehensive network of cardiovascular care providers committed to ensuring evidence-based cardiovascular care, improving patient outcomes and lowering health care costs.

“The NCDR monitors over 25 million patient records to understand the ongoing treatment of CV disease while driving novel insights into variances in global cardiovascular care, spurring research on best practices across countries and bringing together investigators to create science.”

John Gordon Harold, MD, MACC
ACC Past President
Benefits of NCDR participation include:

- Timely **benchmark reports** comparing metrics like practice patterns, demographics, outcomes of diagnostic procedures and therapies, and adherence to ACC Appropriate Use Criteria.

- Free access to **ACC’s Quality Improvement for Institutions** suite of quality initiatives, clinical toolkits, self-assessment tools and other resources designed for every member of the cardiovascular care team. Explore more at [CVQuality.ACC.org](http://CVQuality.ACC.org).

- Opportunities for providers to earn **Maintenance of Certification Part IV** credit and meet federal quality reporting requirements.

- **Ongoing support** from the NCDR Clinical Care Team and one complimentary registration to the NCDR Annual Conference.

- Opportunities to participate in cutting-edge **ACC pilot programs** based on NCDR data.
Acute myocardial infarction treatment

ACTION Registry® is a risk-adjusted, outcomes-based quality improvement program that focuses exclusively on acute myocardial infarction patients. It assists organizations in applying ACC/AHA Clinical Guidelines recommendations for ST-elevation myocardial infarction (STEMI) and non-ST-elevation (NSTEMI) treatments.

Diagnostic cardiac catheterization and percutaneous coronary intervention

CathPCI Registry® assesses the characteristics, treatments and outcomes of cardiac disease patients who receive diagnostic catheterization and/or percutaneous coronary intervention (PCI) procedures. It delivers benchmarking data that help cath labs reduce door-to-balloon times, limit procedural complications, monitor appropriateness of PCI and more.

“NCDR, a trusted source of cardiovascular clinical data collection, allows participating hospitals worldwide to compare their data through quarterly benchmark reports. This helps reduce gaps in care, identify best practices, and improve the delivery of high-quality, cost-effective cardiovascular care.”

Huon H. Gray, MD, FACC
Past Chair of the ACC Assembly of International Governors
Peripheral vascular intervention procedures

PVI Registry™ measures the prevalence, demographics, management, and outcomes of patients undergoing lower extremity peripheral arterial catheter-based interventions, carotid artery stenting (CAS) and carotid endarterectomy (CEA) procedures. It enables clinicians to use decision-making data to implement changes to improve the quality of patient care — whether care is provided in a hospital cath lab, interventional radiology department or an outpatient vascular center.

Implantable cardioverter defibrillator and leads procedures

ICD Registry™ establishes a national standard for understanding treatment patterns, clinical outcomes, device safety and the overall quality of care provided to ICD implantation patients. As the CMS-mandated registry for hospitals that perform ICD implantation procedures, the ICD Registry plays an important role in determining the association between evidence-based treatment strategies and clinical outcomes.

Pediatric and adult congenital treatment procedures

IMPACT Registry® assesses the prevalence, demographics, management and outcomes of pediatric and adult congenital heart disease (CHD) patients who undergo diagnostic catheterizations and catheter-based interventions. Its data support the development of evidence-based guidelines for CHD treatment that will improve outcomes for CHD patients of all ages.
Outpatient Registry

The ACC offers cardiology’s largest quality improvement registry for:

Outpatient cardiovascular care

PINNACLE Registry® focuses on coronary artery disease, hypertension, heart failure, atrial fibrillation and diabetes in the outpatient setting. Its HIPAA-compliant data collection option works with most EHR systems and its unique online portal delivers on-demand reports for viewing overall clinical care, accessing QI best practices, and maximizing PQRS and eRx incentives.

“I recommend the NCDR highly. Especially today, when medical processes, and more specifically cardiology and interventional cardiology, are under the microscope, being part of NCDR is a way to demonstrate that what you’re doing is appropriate. I think the NCDR registries perform a very important service.”

Stuart F. Seides, MD
Physician Executive Director, MedStar Heart and Vascular Institute
Multispecialty Registries

In addition, the ACC is a partner in two registry programs:

Transcatheter valve therapy procedures

STS/ACC TVT Registry™ monitors patient safety and real-world outcomes related to transcatheter valve replacement and repair procedures — emerging treatments for valve disease patients. Employing state-of-the-art heart valve technology, transcatheter heart valve procedures provide new treatment options for patients who are not eligible for conventional heart valve replacement or repair surgery.

Diabetes and cardiometabolic treatments

Diabetes Collaborative Registry™ is the first clinical ambulatory registry aimed at tracking and improving the quality of diabetes and cardiometabolic care across the primary and specialty care continuum. The combined data from primary care physicians, endocrinologists, cardiologists and other diabetes care providers allows for longitudinal study of diabetes, making this a valuable resource that reveals new insights, drives decision-making, and enables better treatment and improved outcomes.
**Achievements:**

- **Door-to-Balloon:** Improvements made in meeting guideline-recommended D2B times of 90 minutes or less for STEMI patients in the ACTION Registry™ — GWTG™.

- **Optimal Medical Therapy:** Providers are **consistently prescribing optimal medical therapy**, including aspirin, thienopyridine/P2Y12 inhibitor, lipid lowering agents and beta blockers, at discharge for PCI patients in the CathPCI Registry®.

- **Radial Access:** PCI using femoral access has decreased while PCI using radial access has increased dramatically. This is a promising trend for eligible patients, in terms of decreasing bleeding rates and recovery times in PCI patients in the CathPCI Registry®.

<table>
<thead>
<tr>
<th>Medication</th>
<th>2008-2011</th>
<th>Non-Transfer Patients</th>
<th>Transfer Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin and thienopyridine</td>
<td>96% - 98%</td>
<td>96.5% - 90.8%</td>
<td>2.9% - 10.9%</td>
</tr>
<tr>
<td>Beta blockers</td>
<td>83.1% - 86.3%</td>
<td>89.7% - 92.5%</td>
<td>85% - 92.5%</td>
</tr>
<tr>
<td>Lipid lowering agents</td>
<td>89.7% - 92.5%</td>
<td>96% - 92.5%</td>
<td>81% - 84%</td>
</tr>
</tbody>
</table>

**Medication Adherence:**

- Nearly **25%** of eligible ICD Registry™ patients are not receiving optimal medical therapy at discharge.

**Care Plans:**

- While PINNACLE Registry data shows **95.1%** of providers regularly record patient blood pressures, only **34.5%** of these providers are documenting hypertension care plans.

**IMPROVEMENT OPPORTUNITIES:**

- There is an opportunity to improve by further educating patients and clinicians about new oral anticoagulants, with only **57.2%** of eligible AFib patients prescribed anticoagulation therapy in the PINNACLE Registry®.

“Last year’s NCDR report, **Cardiovascular Care Facts**, highlighted several success stories between 2008 and 2011, and supports that NCDR data are proving to be useful beyond just identifying trends and gaps in care. They are increasingly used for performance improvement and lifelong learning activities, in addition to research.”

John S. Rumsfeld, MD, PhD, FACC
Chair of the NCDR Management Board and Chief Science Officer
ACHIEVEMENTS:

Optimal Medical Therapy:
Providers are consistently prescribing optimal medical therapy, including aspirin, thienopyridine/P2Y12 inhibitor, lipid lowering agents and beta blockers, at discharge for PCI patients in the CathPCI Registry®.

Radial Access:
PCI using femoral access has decreased while PCI using radial access has increased dramatically. This is a promising trend for eligible patients, in terms of decreasing bleeding rates and recovery times in PCI patients in the CathPCI Registry®.

Lipid lowering agents
89.7% - 92.5%
2009-2011

Beta blockers
83.1% - 86.3%
2009-2011

Aspirin and thienopyridine
96% - 98%
2009-2011

Non-Transfer Patients
Femoral access DECREASED
96.5% - 88.8%
2009-2011

Radial access INCREASED
2.9% - 10.9%
2009-2011

Door-to-Balloon:
Improvements made in meeting guideline-recommended D2B times of 90 minutes or less for STEMI patients in the ACTION Registry® — GWTG™.

IMPROVEMENT OPPORTUNITIES:

Medication Adherence:

With only 57.2% of eligible AFib patients prescribed anticoagulation therapy in the PINNACLE Registry®, there is an opportunity to improve by further educating patients and clinicians about new oral anticoagulants.

Nearly 25% of eligible ICD Registry™ patients are not receiving optimal medical therapy at discharge.

Care Plans:

While PINNACLE Registry data shows 95.1% of providers regularly record patient blood pressures, only 34.5% of these providers are documenting hypertension care plans.

Source: Cardiovascular Care Facts: A Report from the National Cardiovascular Data Registry
With more than 25 million patient records, NCDR encourages research applications from government agencies, educational institutions, corporations and credentialed researchers who are interested in using registry data to answer clinical questions that have the potential to improve patient care. Each year, their findings, whether as articles in peer-reviewed journals or oral presentations or abstracts for major scientific or medical conferences, have the true potential to improve the quality of patient care.

NCDR offers two analytic services:

- **Web-enabled business intelligence data report dashboards** that allow hospitals, health systems, private health insurance payers and other stakeholders to tailor NCDR reports for comparison purposes, including monitoring the quality of data submissions and performing comparative analyses.

- **Custom analytics** that can be used to evaluate clinical data from real-world populations to gain a broad understanding of myriad issues, including safety, effectiveness and quality.

Finally, through the **PINNACLE Registry Research Alliance**, cardiovascular practices have the opportunity to participate in research and access clinical trials, observational studies and investigator development programs. The Research Alliance provides a unique opportunity for practices to help advance the next generation of cardiovascular medicine.

“The future of medicine is increasingly in the hands of those who are effective users of clinical data.”

William S. Weintraub, MD, MACC, FAHA, FESC
Member Emeritus of the NCDR Management Board
Release the Power of Your Data

By joining the NCDR, you are demonstrating your commitment to providing patients, their families and the surrounding community with the best, most appropriate cardiovascular care. You also send a message to payers, lawmakers and other stakeholders about the importance of using data to inform research, change practice and save lives.

Get started today at

CVQuality.ACC.org/NCDR
NCDR® is an initiative of the American College of Cardiology, with partnering support from the following organizations: CathPCI Registry® — The Society for Cardiovascular Angiography and Interventions; IMPACT Registry™ — The Society for Cardiovascular Angiography and Interventions and American Academy of Pediatrics; STS/ACC TVT Registry™ — An initiative of The Society of Thoracic Surgeons and the American College of Cardiology Foundation; PVI Registry™ — The Society for Cardiovascular Angiography and Interventions; Diabetes Collaborative Registry™ — American Diabetes Association, American College of Physicians and Joslin Diabetes Center; ACTION Registry® — The American College of Emergency Physicians.