More than the next generation of structured reporting, Nuance Cardiovascular CAPD, powered by ZHealth, works seamlessly in your CV ecosystem to simplify and streamline every step of clinical documentation and coding. Complex procedures are captured conveniently and accurately in a physician-designed interface.

By automating the workflow, both hospitals and providers obtain the true and complete value of every procedure, reducing errors in patient records and eliminating time-consuming handoffs.
Powered by ZHealth. Known for interventional cardiology expertise. Trusted for results.

Founded by Dr. David Zielske in 2000, ZHealth’s skilled, credentialed physicians and consultants work to help hospitals and physician groups improve coding compliance and reimbursement, focusing on the specialty areas of cardiology and interventional radiology.

With hands-on experience from the clinical setting to the coding and compliance office, our depth of knowledge and credibility in the coding industry is unmatched.

Unmatched experience in coding complex care

Over 450,000 cases reviewed from the country’s leading hospitals

2 decades of focused expertise in complex coding

99% accuracy rate of cases coded, from simple to complex
Established in hospitals nationwide

ZHealth physicians are the authors of Dr. Z’s Medical Coding Series, the premier source of coding information for these specialty areas.

Over

4,500 hospitals

use ZHealth tools and services

Over

35,000

industry-leading books sold

Industry leadership

Together with the American Academy of Professional Coders (AAPC) and other specialists, ZHealth Publishing established the Certified Interventional Radiology Cardiovascular Coder (CIRCC®) specialty in 2008. This innovative credential provides much-needed recognition for expertise in one of the most difficult and complex areas of coding.
The challenges of coding complex care

The cardiac catheterization lab is one of the most complex areas of the hospital to accurately transform practice into reimbursable codes. The variations in clinical presentations and procedures, along with different styles of communication and case documentation, create unique and costly challenges.

Each variation affects downstream steps. With the added complexity of the CPT® coding system, hospitals and physicians often miss significant opportunities to receive proper compensation for services provided.

National averages for the cath lab

Even the most advanced and respected hospitals struggle to accurately capture the right information for coding cath lab cases. Experts have quantified this using actual historical data.

- **45%** cardiovascular reports contain coding errors
- **$8K** average missed reimbursement per under-coded case
- **100s** of cases per year pose a compliance risk for the average size hospital
- **$180** average under-reimbursement per case (Medicare payment level)

*Statistics from internal analysis*
Challenges
• Patient anatomy, history, and presentation
• Variation in physician approach and practices

CLINICAL COMPLEXITY

Individual physician dictation styles

Challenges
• Differences in level of details
• Limited by inflexible templates
• Inconsistencies between narrative and devices

REPORTING LIMITATIONS

Human interpretation

Challenges
• New codes every 6 months
• Staff turnover
• Managing gaps and mismatch

CODING EXPERTISE

Translation

Billing Registries CDI Teams Patient EHR
Nuance Cardiovascular CAPD streamlines the path to clinical accuracy and compliance

In a single solution, Nuance Cardiovascular CAPD marries powerful user interfaces to a state-of-the-art coding engine, harnessing ZHealth’s unique insights into improving coding accuracy – particularly for complex cases.

The result: a streamlined process designed for efficiency and accuracy, from physician input of the case to the quickly available outputs for your billing and compliance professionals.

One unified technology to bridge documentation and coding

Nuance Cardiovascular CAPD brings the fragmented pieces of your case workflow together into a single documentation-to-coding system. Working as one, the main components of the solution streamline and consolidate the entire process.

Physician-friendly Provider Interface
Designed by physicians, a flexible interface provides improved accuracy without demanding additional time from your physicians.

CPT Code Engine
A finely-tuned engine transforms the case description into coding and immediately audits it for compliance.

Review – don’t interpret
A unique Compliance Interface puts the physician report and codes side-by-side for easy review and acceptance. Built-in auditing highlights irregularities and simplifies the workflow of resolving discrepancies or obtaining missing information from the clinical team.
Workflow simplified

Automatic capture of patient and device information from your hemodynamic system

Nuance
Cardiovascular
CAPD

Provider Interface

Coding Engine

Compliance Interface

Physician Structured Report
- Clinically accurate
- Clearly communicated
- Consistent format

EHR Interface
- Complete
- Richly interfaced
- Flexible output format

Billing Package
- Hospital and physician codes
- Electronically communicated
- Compliant
A visual interface designed by physicians

Crafted by physicians and usability experts, each procedure is finely tuned for accuracy, completeness, and minimal entry time. Our unique and intuitive anatomical interface lets physicians quickly capture pathology and procedural details.

Intuitive interface provides guidance through procedure entry

Accurate anatomy with real-world variations

Extensive body maps for any cardiac cath lab procedure

Procedure details at a glance
Improved accuracy at the speed of dictation

Structured reporting doesn’t need to take long. To make Nuance Cardiovascular CAPD a suitable alternative to dictation, we’ve focused on speed and minimized user input in order to capture the most accurate data in the least amount of time.

Contextual intelligence saves time

Built around real-world clinical cases, Nuance Cardiovascular CAPD takes every opportunity to minimize unnecessary documentation. Context is the key. Only fields, options, and questions that are relevant to the patient and procedure are put in front of the physician. The solution provides the format and structure behind the scenes, saving physician time.

Capture complex cases more accurately

Unlike other structured reporting systems, Nuance Cardiovascular CAPD isn’t based on the rigid or vague templates common in the space. Many templates struggle with complex cases or additional procedural elements outside the ordinary. Its intelligent forms provide the flexibility needed for physicians to represent important details and avoid omissions. Challenges like unexpected coronary anatomy or attempted stent placements are easily handled within the solution’s interface.
Replace long dictated phrases

**Conscious Sedation case study.** As of January 2017, clinical documentation must include detailed information about the level of conscious sedation. Many dictated audio files may lack this key information.

With Nuance Cardiovascular CAPD, this step is embedded and simplified to minimize physician entry time.

Upon arrival to the cath lab, the patient was prepped and draped in the usual sterile manner. Local anesthesia was utilized. *I was personally responsible for the intra-procedural administration of moderate sedation and affirm the use of an independent trained observer. The intraservice (physician face-to-face) time was 34 minutes.*
Powerfully accurate physician reports

Nuance Cardiovascular CAPD builds the physician report from all the essential documented elements, presenting them with full fidelity to how they were entered. Because they are generated from the same data as the rest of the case record, discrepancies are eliminated.

Structured Dictation automatically creates high-quality narratives with no extra effort

Structured Dictation technology builds natural language reports of the case. All necessary case information is embedded, from the patient history and presentation to the devices used, as well as the nuances of the procedure itself.

Narratives are organized in a clinically logical approach, presenting key information in a familiar and consistent manner from case to case, physician to physician.

CASE DICTATION

Upon arrival to the cath lab, the patient was prepped and draped in the usual sterile manner. Local anesthesia was utilized. I was personally responsible for the intra-procedural administration of moderate sedation and affirm the use of an independent trained observer. The face-to-face time was 34 minutes. Realtime ultrasound guidance was used to achieve percutaneous vascular access of the mid right common femoral artery. The vessel was patent, and an image was obtained and placed in the permanent medical record. A 7 French Brite Tip sheath was used for procedure(s) performed via this access.

A 6 French JL3.5 catheter and a 6 French JR3.5 catheter were then advanced into the origin of the left and right coronary arteries. Contrast was injected, and a diagnostic bilateral coronary angiogram was performed. (2) diagnostic findings were noted as follows: an 85% atherosclerotic stenosis in the proximal right coronary artery and a 70% atherosclerotic stenosis from the proximal to the mid left circumflex artery...

Sample Structured Dictation™ output generated by Nuance Cardiovascular CAPD
Optimized for completeness and continuity of care

Coupled with the associated graphics and other case data, the entire story of the case is presented in a manner to maximize understanding by the reader. Clear communication means a reduced need for physician queries.

All available hemodynamic data, supplies, and procedure information is included in the detailed report, which is consistent with ACC recommendations.

Tell the story visually with graphical reports

The power of the solution's graphic interface is carried through to the report. A graphical report provides a visual overview of diagnostic findings and interventional procedures performed, along with outcome details.

Physicians appreciate the clarity of this visual communication, and use this report as an essential tool in discussing care with patients and their families.
Compelling ROI

The cardiovascular service line is a critical revenue component, but cardiovascular coding is replete with complexity and subtle details.

Nuance Cardiovascular CAPD was created to optimize revenue by making it simple to capture the correct codes, eliminate hand-offs, and streamline the connection between clinical documentation and billing.

Gain a day or more in your revenue cycle

The unified workflow of Nuance Cardiovascular CAPD means fewer handoffs, less sequential work, and faster time to billing. By merging structured reporting, coding, and compliance assessment, the solution can permanently accelerate your revenue cycle. For traditional approaches, a day or more of process waste can be removed.

Nuance Cardiovascular CAPD

Nuance Cardiovascular CAPD combines, replaces, and automates multiple steps, accelerating and streamlining the billing process.

- 60,000 cases/year
- $50,000 charge/case
- 70% outpatient
- 25% collected
- 1.0 days improvement
- $2.02 million in first year
**Increased coding accuracy and capture**

Our experience has measured case error rates of about 60%, even among the most diligent systems. Errors or imperfect information can result in coding a lower-revenue procedure, missing elements entirely, or creating compliance risks by over-coding.

<table>
<thead>
<tr>
<th>Cases/year</th>
<th>Outpatient</th>
<th>Underbilled/case</th>
<th>Annual Underbilling Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>60,000</td>
<td>70%</td>
<td>$160</td>
<td>$6.72 million</td>
</tr>
</tbody>
</table>

**Built for efficiency**

Unlike other systems, Nuance Cardiovascular CAPD builds a single case record that captures both the clinical inputs and the coding outputs. This unprecedented level of efficiency and harmony delivers results: lower input costs, faster processing time, and reduced workload and hassle in coding. Real-world results show a reduction in overall workflow time of 50%.

<table>
<thead>
<tr>
<th>Transcription</th>
<th>Clerical/e-signing</th>
<th>Registry Data Abstraction</th>
<th>Reduced Coding/Billing Costs</th>
<th>Annual Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>$360,000</td>
<td>$360,000</td>
<td>$480,000</td>
<td>$1,342,000</td>
<td>$2.54 million</td>
</tr>
</tbody>
</table>

**Physician billing and education benefits**

Nuance Cardiovascular CAPD provides physician billing codes directly to the billing teams, with 100% alignment with the hospital codes. Cardiovascular coding changes frequently, and keeping physicians educated and adept in these codes can be costly. The solution keeps CPT codes compliant with the latest ruleset, eliminating the need for physician coding education.

<table>
<thead>
<tr>
<th>Physician Coding</th>
<th>Physician Education</th>
<th>Annual Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>$420,000</td>
<td>$450,000</td>
<td>$870,000</td>
</tr>
</tbody>
</table>

**ANNUAL BENEFIT**

$10.1 million

*Statistics from internal analysis for an example 20-hospital system*
Unmatched data visibility

Nuance Cardiovascular CAPD unifies clinical and usage data, and can leverage that growing dataset into powerful insights. In addition to standard exports, the solution generates key reports that can drive improvement and demonstrate compliance.

HIPAA auditing

Identifying and reporting on user transactions is core to managing the security of patient records. Nuance Cardiovascular CAPD provides clear activity and transaction records in a friendly interface, with power search capabilities to enable quick display, filtering, and export.
Without any additional data input, Nuance Cardiovascular CAPD provides insights into a broader scope of operations within your facility. Whether tracking physician RVUs or analyzing cost per case at the facility or division level, it puts that valuable information at your fingertips.
Uncompromising compliance

Because it unites the act of documentation and the mechanics of coding into a single technology, Nuance Cardiovascular CAPD drastically reduces discrepancies in your cases, from the simple to the most complex. Billing files, physician reports, CDI documents, and registry submissions are harmonious and consistent.

Dedicated compliance interface

The Nuance Cardiovascular CAPD compliance interface greatly decreases the time needed to review codes and cases for compliance. Case flags highlight potential compliance risks. Clear workflow management and triaging of case loads. Side-by-side viewing of physician reports and codes.

Always current to the latest coding rules

Nuance Cardiovascular CAPD always contains the latest changes to the NCCI, and our experts and engineers are continuously working on the next version. With the built-in expertise, human error and coding staff turnover are less likely to create compliance issues.

Overcoming template headaches with intelligent forms

Templates work well for simple cases, but fall short when confronted with complex cases or unexpected situations. Nuance Cardiovascular CAPD uses intelligent, adaptive forms in the provider interface that can accurately capture even the most complex cath lab procedures.
Hassle-free implementation

Nuance Cardiovascular CAPD makes it simple to modernize your approach to cardiovascular case documentation. Both technical implementation and our unique training approach are crafted for a smooth, hassle-free implementation. Unlike many software implementations, the solution is a workflow improvement that can deliver immediate benefits.

Interoperable with your EHR and hemodynamic system

From authentication to billing, Nuance Cardiovascular CAPD integrates seamlessly with your existing workflow and CV tools. Our integration engineers can apply one of our existing interfaces for the most common hemodynamic or EHR systems, or quickly create an information exchange approach that fits your unique ecosystem.

Cloud or on-premise, to suit your needs

Nuance Cardiovascular CAPD was created with an understanding that one size doesn’t fit all. We offer both a private cloud solution and a completely contained on-premise system. Both platforms are resource-light, stable, and built to respect your existing security and user identity approach. Crafted with a modern, elegant architecture, initial and ongoing time investments are minimized.

Implementation Workflow

- PRODUCT DEMO
- COLLABORATIVE PROJECT PLAN (2 - 6 weeks)
- ESTABLISH INTERFACES (2 - 3 weeks)
- INSTALL NUANCE CARDIOVASCULAR CAPD (1 week)
- DELIVER TRAINING (1 week)
- ROLLOUT (1 week)
- AUDIT & MONITOR RESULTS Ongoing

Visit nuance.com/go/capd to schedule a demo
Mentors – a more effective training approach

Training physicians in new software demands more than videos and a support desk. Our experienced mentors provide individual training, coaching physicians through their first experiences with Nuance Cardiovascular CAPD using their actual cases.

**Experienced trainers.** Each mentor is rigorously trained by practicing physicians and brings years of experience in healthcare.

**On-site mentoring.** Mentors are ready when your physicians are, working around your lab’s case load to reach each user. Our hands-on approach and presence make training accessible for both super users and infrequent users.

**Post-launch confidence.** With a well-stocked knowledge base and direct channels for assistance, we deliver state-of-the-art support.
System features

**PROVIDER INTERFACE**
Designed by practicing physicians, the flexible input interface is built around a modern and highly visual experience. Contextual logic and the Structured Dictation engine streamline entry and creation of clear, consistent, and clinically accurate reports.

**CODING ENGINE**
The Coding Engine is current to the latest version of the National Correct Coding Initiative (NCCI) from CMS. Nuance Cardiovascular CAPD is updated at minimum every 3-6 months to proactively implement changes.

**ON-SITE INTEGRATION**
Nuance Cardiovascular CAPD interfaces with major EHR, hemo, inventory and billing systems using both standard formats and dedicated interfaces. Custom interfaces are available to suit your unique environment.

- Hemodynamics
- ADT
- Cath Lab Supplies
- Electronic Health Record (EHR)
- Billing Systems
- Registries

**COMPLIANCE INTERFACE**
Review physician documentation and coding output immediately, with inventory discrepancies and day-of-therapy procedures flagged to ensure accuracy.
Nuance Cardiovascular CAPD procedure list

Diagnostic Procedures
- FFR
- iFR
- ICE
- OCT
- IVUS
- Swan Ganz Placement
- Angiography
- Venography
- Left Heart Cath
- Right Heart Cath
- Left Ventriculography
- Right Ventriculography

Interventional Procedures
- Angioplasty
- Atherectomy
- Cooling Catheter Placement
- Embolization
- Endomyocardial Biopsy
- Filter Placement
- IABP Placement
- LAA Closure
- Mitral Valve Repair
- Paravalvular Leak Repair
- Percutaneous LVAD
- Percutaneous RVAD
- Pericardiocentesis
- PFO Closure
- Septal Ablation
- Stent Placement
- Stent Graft Placement
- Temporary Pacemaker
- Thrombectomy
- Thrombolysis
- Valvuloplasty
- Valve Placement

Coming Soon
- Loop Recorder
- ICD
- Pacemaker
- CardioMEMS

Nuance Cardiovascular CAPD covers all diagnostic and interventional procedures performed in the coronary arterial system, the heart chambers, and in the peripheral arterial and venous systems.
Improve patient communication

In every aspect of care, patients come first. Records of procedures can appear throughout a patient’s care process. That’s why our patient reports are formatted for both accuracy and ease of communication.

Continuity of care

Completeness and accuracy of record are critical in ensuring that future caregivers and physicians have a clear understanding of past procedures. Nuance Cardiovascular CAPD enables accurate capture and presentation of information through our Provider Interface, and validates completeness through our powerful Code Engine and Compliance Review.

Patient & family communication

The clear graphic reporting is the ideal diagram to help patients and their families understand complex procedures. Feelings of trust and transparency are enhanced when they see you sharing actual clinical documentation with clear, chronological narratives and devices used.
Nuance Cardiovascular CAPD

To schedule a demo or get more information, please call your Nuance sales representative or contact us at

nuance.com/go/capd  1-877-805-5902
About Nuance Communications, Inc.

Nuance Communications (NASDAQ: NUAN) is the pioneer and leader in conversational AI innovations that bring intelligence to everyday work and life. The company delivers solutions that understand, analyze, and respond to people—amplifying human intelligence to increase productivity and security. With decades of domain and AI expertise, Nuance works with thousands of organizations globally across healthcare, financial services, telecommunications, government, and retail—to create stronger relationships and better experiences for their customers and workforce. For more information, please visit www.nuance.com/healthcare or call 1-877-805-5902. Connect with us via the What's next blog, LinkedIn, Facebook, and Twitter.