



A Modern Code Set in Search of Modern Attitudes and Approaches

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The irony of signing into law on April Fool's Day a second delay for the mandatory implementation of ICD-10 was not lost on many inside the healthcare industry. Detractors and supporters of the beleaguered code set had a field day invoking Yogi Berra-isms like "It's déjà vu all over again." And "It ain't over til it's over."

Now that Congress has interfered with the regulatory timeline, many fear providers, payers and vendors already on the path of ICD-10 preparedness will disengage, and those who were inertia bound will use this as an excuse to "wait and see" what happens next. Mothballing of programs that were on the cusp of testing and institutional apathy could provide elements for a third perfect storm when the Sustainable Growth Rate is again debated next March in a Congress characterized more by gridlock and partisanship than progressive action.

Concerned stakeholders from every corner of the care and coding continuum are asking what should be done to ensure momentum and combat complacency.

This whitepaper explores several factors and factions that contributed to the delay and steps that can be taken to "stay the course". Specifically it reviews:

- *Who contributed to the second delay;*
- *What happens when media and vendors trivialize ICD-10;*
- *Why the industry has misunderstood ICD-10;*
- *How eLearning can help physicians embrace ICD-10*

There are many ways that organizations and individuals can drive positive actions to ensure that a year from now they are fully prepared and engaged. Because as Yogi often quipped, "When you come to a fork in the road, take it."

Background and Context

In 1763, the first known classification of disease was created by a French physician and botanist, Sauvages de Lacroix, who wrote the *Nosologia Methodica*. But almost two centuries passed before formal classification systems for regular patient encounters emerged.

In 1948, the World Health Organization (WHO) adopted the International Classification of Diseases (ICD), then known as ICD-8 (or the 8th edition). The U.S. spent twenty indecisive years before formally embracing ICD-8 in 1968. In 1977, the U.S. sought permission of the WHO to make the clinical modifications now known ICD-9-CM – the code set we’ve been using for the last 37 years.

To put things in perspective, 1977 was also the year the first Apple II computers became commercially available. And scientists identified a previously unknown bacterium as the cause of the “Legionnaires’ disease”. The first magnetic resonance imaging scan of a human body was conducted in 1977 and the first Percutaneous Coronary Intervention (PCI), now commonly known as coronary angioplasty, was performed.

A lot has happened since 1977 and ICD-9 has run out of capacity to chronicle the changes. Scores of new diseases have emerged – HIV/AIDS, SARS, H1N1 and MRSA to name just a few. In fact, in a recent article published by the American Society of Microbiology “Emerging Infectious Diseases in 2012: 20 Years after the (1992) Institute of Medicine Report”, it has become clear that each year, five or six emerging infectious diseases have appeared over the past 8 decades. Some of these diseases are transmitted by birds and livestock the coding of which has become the butt of ICD-10 jokes.

Even our knowledge of human anatomy has progressed. For example, in late 2013, two Belgian knee surgeons discovered a previously unknown ligament located in the tendons and muscles of the knee that plays a major role in recovery in anterior cruciate ligament (ACL) tears.

In 2007, the latest year for reliable data, there were 7,000 MRI scanners in use in the U.S. with nearly 30 million scans taken in 2010. And according to the 2010 National Hospital Discharge study some 2.4 million arteriographs and angiocardiograms using contrast were performed. That’s a lot of important data just waiting to be mined IF ICD-9 were specific enough to make sense of it all.

The WHO copyrighted ICD-10 in 1990 and most developed countries embraced it as a more effective classification system for reporting mortality and morbidity than ICD-9. Many readers may be surprised to learn that the U.S began using ICD-10 to report mortality back in 1999.

In 2004, the RAND Corporation released a technical report on “The Costs and Benefits of Moving to the ICD-10 Code Sets”. Their peer-reviewed, best guess was that the cost of conversion to ICD-10 would run about \$425 million to \$1,150 million in one-time costs, plus somewhere between \$5 million and \$40 million a year in lost productivity. They studied five major classes of benefits: 1) More-accurate payments for new procedures; 2) Fewer miscoded, rejected, and improper reimbursement claims; 3) Better understanding of the value of new procedures; 4) Improved disease management and 5) Better understanding of health care outcomes (considered, but not estimated). Both costs and benefits were calculated over a ten year time horizon. They concluded that the benefits of switching to both ICD-10 CM and ICD-10 PCS would likely outweigh the costs but that there was wide variability in determining costs.

However, it wasn’t until 2009 when President George W. Bush signed a law making ICD-10 implementation mandatory that it appeared on the radar screen of professional organizations like the AMA

Professional Organizations Take Aim at ICD-10

In 2008, a consortium of 11 major healthcare associations led by the AMA and including the AAPC, MGMA plus 8 specialty associations, commissioned Nachimson & Advisors to develop a cost impact analysis that estimated ICD-10 implementation costs from \$83,290 for a small practice, \$285,195 for a medium practice and \$2,728,780 for a large practice.

In 2014, this time acting alone, the AMA commissioned a second Nachimson study which found significantly higher ranges for each practice size based on variable factors such as specialty, vendor and software. For small practices the range was from \$56,639 - \$226,105, for medium sized from \$213,364 - \$824,735 and for large practices of 100 or more physicians from \$2,017,151 - \$8,018,364. Thanks to the PR news wire, and instant internet news, the details of the study traveled quickly throughout the medical community.

The AMA was particularly vocal in their opposition to ICD-10 and pointed to systemic losses in productivity endured by the Canadian health system when they converted from ICD-9 as proof positive of the damage ICD-10 would inflict upon an already burdened healthcare infrastructure.

From 2001 to 2005, Canada staggered their transition to ICD-10 CM (Canadian Modification) across hospitals only. It took place over a four year period in waves across individual provinces. Coding productivity drops as high as 50% immediately after implementation were reported and in some instances, it took as long as three years to get back to pre-ICD-10 levels.

What is rarely reported, however, is that Australia’s implementation process was similar to Canada’s in that it was staggered across the country and only included hospitals. However, Australian coders only took several months to return to pre-ICD-10 productivity levels.

Key factors accounting for the disparity of outcomes between the Canadian and Australian transitions to ICD-10 are instructive.

- Australia limited their transition to one year, from 1998-1999, but they began educating providers and coders three years earlier and incorporated feedback elicited through post training surveys. Twelve months before the cutover hospitals received an implementation kit for ICD-10-AM (Australian Modification) and additional informational booklets about key coding concerns.
- By contrast, Canada did not dedicate the time and attention to training and feedback and they took four times longer than the Australians to implement the change.

Obviously the Canadian and Australian initiatives were funded by their respective governments. Roughly one third smaller in population than Canada, Australia dedicated more funding in communications resources and training.

By contrast, ICD-10 in the U.S. is an unfunded mandate but it is assumed that most EHR's, whose blistering growth spurt was fueled by Meaningful Use incentives, will bear the development costs and pass solutions through without charge to their customers.

The Nachimson studies and lopsided Canadian example were two levers lobbyists pulled in influencing powerful Congressional allies in the blockade against ICD-10. And opposition to the 17th extension of the SGR was sufficient political cover for the rear guard action of slipping a single sentence into the Protecting Access to Medicare Act of 2014 (PAMA) that stopped ICD-10.

Cause and location codes are no laughing matter

What seems absurd sells newspapers (and digital views) and the media had a field day with the ICD-10 cause and location injury codes that are required by some payers in some states. Full page articles in the business sections of major metro dailies poked fun at coding skis on fire and sucked into a jet engine. Major vendors in the coding space joined the free-for-all with blogs like MedPageToday's "ICD-10 Follies" or "Struck by Orca" an ICD-10 illustrated paperback edited by Niko Skievaski, a former Epic Systems employee.

Sadly, what they poked fun at are the statistics that help inform safety outreach and initiatives aimed at educating consumers to help reduce accidents and save lives. Consider these three examples in "Struck by Orca".

V96.00XS (Unspecified balloon accident injuring occupant, sequela)

According to a National Transportation Safety Board database, hot air balloon crashes have killed 114 people in 67 incidents in the United States since 1964. A recent government-funded study of commercial flight crashes from 2000 to 2011 found all five deaths in those cases came after collisions with trees, power lines or buildings. Modern balloons now have the capacity to transport 20 or more passengers, and accidents like one in Luxor, Egypt took the lives of 19.

U.S. balloon pilots must be certified and their balloons regularly checked by authorities. But the NTSB said recent studies of accident data showed the current lack of surveillance checks and other oversight contributed to “operational deficiencies” in commercial hot-air balloon flights. Some went up in the air despite risky weather, while others failed to follow the flight manual. Concern about “the number of recurring accidents” involving similar safety issues, the NTSB recently recommended that the Federal Aviation Administration (FAA) treat hot-air balloons carrying paying passengers the same as helicopters and planes by subjecting tour operators to more regulation.

V97.33XD (Sucked into jet engine, subsequent encounter)

Horrible to contemplate, a number of airline subcontractors have slipped or fallen near jet turbines only to be sucked into the swirling metal as passengers, unaware of the fate of the victim, calmly board the aircraft. A few have escaped death, although that is not the norm. If drivers operating a car with a faulty ignition switch met their demise, outraged Americans would expect the federal government to be collecting data to advise the general public of an important safety issue. So why would we make fun of the safety of ground personnel attending to an aircraft?

V91.07XD (Water skis on fire)

Boating safety is serious business and insurers want to make sure that water craft and their operators are trained appropriately, that their boats are operational and that their judgment is not impaired when they have the lives of others in their care. In 2012, the Coast Guard counted 4515 accidents that involved 651 deaths, 3000 injuries and approximately \$38 million dollars of damage to property as a result of recreational boating accidents. 333 accidents involved water skis resulting in 20 deaths. And yes, fire in boating accidents is common.

Lest you still not be persuaded, how about that duck bite? This year a \$250,000 lawsuit was filed in Oregon to compensate a Washington woman for pain and suffering involving a duck bite.

Animal liability is destined to become more legally relevant as vocal members in our society increasingly insist upon the right to bring pets into places and spaces for work, eating and transportation. Service animals aren’t just defined as Seeing Eye dogs anymore – there are service parrots and even iguanas.

The trade in exotic animals is explosive. According to the Humane Society of the United States (HSUS) the exotic pet trade inside the U.S. is a \$15 billion dollar industry, second only to drugs and weapons on the black market. Lions and tigers, venomous snakes, monkeys and hedgehogs are becoming increasingly commonplace. Bites are only one dimension of health problems that exotic pets create. Just last month the CDC posted a warning about a “Multistate Outbreak of Human Salmonella Cotham Infections Linked to Contact with Pet Bearded Dragons”. Across 31 states, 132 people contracted salmonella, 58% of whom were under the age of 5. While no deaths have been reported, 42% of the cases involved hospitalization.

Another thing not to laugh about is the explosion of diabetes in America. The statistics released by the American Diabetes are actually sobering. More than 26 million among us have this horrible disease and another 79 million are considered pre-diabetic. The economic impact of those who are diagnosed is a staggering \$245 billion per year. If the trend continues, 1 and 3 Americans will have diabetes by 2050.

ICD-10 requires clinicians to break diabetes into its various types, to specify whether there are complications in major systems and to document separately the complications of each system (i.e., circulatory, ophthalmic, neurological, etc.) and to identify other factors like gangrene or coma. Without this kind of insight, how will our research community ever tackle, and hopefully someday conquer, this horrible, life threatening disease.

ICD-10 is not a coding problem

Many hospitals, practices and solutions vendors see ICD-10 as a coding problem, so they are marshalling their resources, and energy, around the coding workflow, addressing ICD-10 on the back-end. And they've built an elaborate technological and training safety net around coders.

Scores of companies market coding books and reference manuals reminiscent of the old Yellow Pages business model, but these outdated modes of education and training are not going to sufficiently prepare the industry for the onslaught of ICD-10. A well-oiled army of trained consultants audit hospital and practice billing records, and certify coders via online tutorials, or travel to hotels nearby hospitals to conduct Boot Camps.

Elite voice recognition and computer assisted coding tools have emerged as the Special Forces of technology, developed to help extract clinical specificity from physician dictation or documentation. This focus on coding may be a great stimulus for the recovering U.S. economy, but it misses the point of ICD-10.

The real power of this modern code set lies in helping clinicians to “think differently”, to see that detailed, ICD-10 compliant clinical documentation can improve patient outcomes, as well as the bottom line of their organizations.

When you break it down, what's so revolutionary about asking a clinician to specify the laterality of a condition or procedure? Doesn't it make sense to document the frequency and severity of symptoms or the classification of a broken bone and whether or not it's displaced? What happens during different trimesters of a pregnancy can lead to better care.

ICD-10 is all about clinical documentation improvement concurrent with care, not days after when bills are coded and rendered to clearinghouses. But a lot of money has been made making ICD-10 seem like a complex coding labyrinth that requires clinicians to spend valuable time off the job learning what is presented as a complex subject they'll soon forget.

A Modern Learning Tool for a Modern Code set

Few industries have undergone the rapid, and often dislocating, electronic transformation that has occurred in health care. In their attempt to modernize an industry notoriously slow to change and built on a foundation of forms and paperwork, the U.S. government in 2009 pumped \$19 billion in incentives to accelerate the adoption of electronic health records in hospitals and physicians practices.

By 2010, only 20% of the roughly 5,700 US hospitals had such systems in place. Two years later there were a mind-numbing 551 certified medical information software firms offering 1,137 different programs. Many hospitals and some entrepreneurial physicians developed their own home grown systems. By May of 2013, then HHS Secretary Kathleen Sebelius announced HHS had exceeded its goal for 50 percent of doctor offices and 80 percent of eligible hospitals to have EHRs by the end of 2013.

Sadly, few of the medical records and practice management systems developed during this rapid expansion of competing suppliers are interoperable and once the stimulus money is gone, the high operating costs of these expensive legacy systems will be staggering to maintain.

This complex labyrinth of systems has also come at a high cost to clinical productivity. Many clinicians claim to see half the number of patients they did in the pre-EHR world.

Add to that the extra burden of having to teach clinical and administrative staff about ICD-10 and it's no wonder healthcare providers are grumbling. This is a demographic that is ripe for smart work tools that enable them to spend less time in the classroom and more time in the hospital or office.

Medicine is a knowledge-based profession. Physicians value the knowledge they acquire and how they deliver that knowledge to the patients they diagnose and treat. They are required by licensing boards to continuously learn and yet the time available and the methods available to do so are often in conflict.

ICD-10 is almost custom made for eLearning. Instead of taking physicians offsite to attend day long Bootcamps or sit through boring lectures about chapters, exception codes and mapping anomalies, they need to be exposed to short instructional videos about the clinical specificity that makes ICD-10 a superior code set to ICD-9.

And they need to practice using a Computer Assisted Physician Documentation (CAPD) tool like Cypher. In 3 easy steps, and in less than a minute for most patient records, users can learn to document in ICD-10 accurately, completely and painlessly. And, the equivalent ICD-9 codes and SNOMED terminology are automatically generated so you can use Cypher immediately.

Cypher relies on physician-friendly ICD-10 guidance panels to enable a user to document using clinical terminology, not code speak. A clean, 'click and go' interface featuring intelligent search, proprietary "guided navigation" and sophisticated filtering moves users rapidly through the documentation workflow.

Cypher data prompts remind the user to document etiology, additional factors, complications and comorbidities that aid in ensuring maximum eligible reimbursement. Evidence-based and peer generated Clinical Documentation Improvement MonographsSM provide clinical and coding education for the condition and procedure each user records.

Education and training costs are slashed by up to 50% because users learn while documenting. Practices and hospitals make and keep more top line revenue because documentation is complete. Plus, low monthly pricing, no long term contracts and volume discounts help buyers save even more.

Instead of using antiquated teaching methods, Cypher and other CAPD tools offer a modern approach to learning a modern code set.

Patients aren't a set of alpha numeric codes. They are people in need of clinical expertise. Cypher™ helps physicians document patient conditions and procedures with the degree of clinical specificity that leverages the power of modern information technology, letting them see a patient's health problems in a whole new light. And with that insight comes the added benefit of appropriate reimbursement for the care they provide. That's the true power of Computer Assisted Clinician Documentation (CACD) Software.

Or as Yogi famously said, "You can observe a lot by watching."

About the Authors

Jackie Morey, ICDLogic Co-founder and Chief Marketing & Sales Officer has spent a decade of her 30 plus year career focused on helping to launch and market products aimed at helping healthcare providers and payers better serve their patients and clients. From Elsevier's "OncologySTAT®" or the "Lancet Careers.com" to HCPro's Comply™ for Revenue Cycle, Jackie demonstrates a keen understanding of regulatory issues, compliance and workflow issues. She has a MS degree in Advertising and Journalism, Summa Cum Laude, from Ohio University.

Jaime Dvorak, Managing Editor of Cypher™ is an approved AHIMA-Approved ICD-10-CM/PCS Trainer who is highly experienced and skilled in the launch and management of medical practices. Her experience includes all phases of launching a new practice from the renovation of the building and credentialing the physician to setting up the EMR, training the staff, creating the overall work flow system, maintaining the billing and transitioning to ICD-10. Jaime has a degree in Health Information Technology from Davenport University, MI.

About ICDLogic

Established in 2012, ICDLogic is a New York City-based technology company founded by healthcare information and technology experts who know how to build smart information-driven applications for physicians. ICDLogic has extensive experience in healthcare regulatory information, billing and coding, and understands the semantic ontologies behind ICD-9, ICD-10, SNOMED CT, MeSH, LOINC and UMLS. We also understand the importance of Clinical Documentation Improvement (CDI) and its impact on DRGs, coding, reimbursement, and health revenue compliance. Most importantly, we understand the need for intuitive user interfaces that make information-rich applications that are easy to use by doctors and other clinicians.

ICDLogic's mission is to provide easy-to-use clinical documentation tools for clinical staff so they can spend more time with patients and less time on compliance education and busywork.



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