



Case Study: Vanderbilt University Medical Center

Nashville, Tennessee



Vanderbilt **Medical Center**

Vanderbilt University Medical

Center is consistently rated in the top 20 U.S. hospitals in *U.S. News and World Report* and other annual hospital rankings. Its programs for cancer treatment, hormonal disorders, gynecology, kidney disease, pulmonary disease, and several other health concerns are assessed among the best nationally.

In addition, Solucient named Vanderbilt one of the top 100 hospitals, Leapfrog listed it as one of the top hospitals in 2006, and Vanderbilt reached Magnet designation this fall. But the nearly 900-bed facility isn't resting on its already premier reputation. In keeping with its strong focus on providing the highest quality patient care, Vanderbilt is working to move into the top 10 hospitals in the country. To help meet this milestone, Vanderbilt must make sure that the true risk of mortality and severity of illness of its patients are accurately reflected in its reported data.

"What we've really seen and what we can say objectively is that our deaths have gone from about 30 percent being classified as '4's' [highest] in expected risk of mortality to about 80 percent being classified as '4's'. And the good part is that the software was very economically priced, so we've had a great return on our investment."

— Freda Scott, assistant director of Medical Information Services,
Vanderbilt University Medical Center

Improving accuracy with 3M APR DRGs

In 2004, Vanderbilt's coding organization began applying 3M APR DRGs to diagnoses. The hospital's marketing department was already using the methodology to look at information retrospectively, but the front-end use of the software was a new and innovative approach for Vanderbilt.

"Initially, we began using 3M's APR DRGs to evaluate the diagnoses, because we felt our patients were very sick," says *Freda Scott*, assistant director of Medical Information Services (MIS). "The UB has fields for only nine diagnoses, so we wanted to make sure the diagnoses with the highest severity and risk of mortality scores were included in the top nine, since they are the diagnoses outside payers and organizations look at to grade our hospital."

"We tracked every single death, analyzing them for both severity and risk of mortality. It was very rewarding to see the results and there was a lot of interest throughout the institution," she says.

Ready for changes

Use of 3M APR DRGs by the hospital has since evolved into tracking severity of illness and risk of mortality data, including assigning an APR DRG score to every discharge.

"If we have a death with less than a '4' risk of mortality, then we do second-level reviews," says Scott.

"We sometimes do a third-level review, getting a physician involved if we believe there is still something that needs to be examined."

And how has using 3M APR DRGs affected hospital data in the long term?

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Although the hospital's main focus has been on mortality, severity of illness is next in line for analysis with 3M™ APR DRGs, according to Cathy Hallock, coding quality consultant. "We're going to spend this year working on severity, since we're moving toward a severity adjusted payment system," she says.

Should Tennessee eventually use 3M APR DRGs for reimbursement, "We will be in good shape, because our coders already understand the nuances of the system," adds Scott.

The excitement spreads

"Our Children's Hospital is now using APR DRGs to compare themselves with other children's hospitals that use the methodology," says *Stephanie Hays*, coding quality consultant. "They bill everything using DRGs, but as far as their comparison review with peer hospitals, they use APRs."

"Word is spreading," says Scott. "As we have rolled this out, various hospital services have contacted us saying, 'Hey, we want to work with you to better understand what drives severity and risk of mortality.' We have five clinical documentation coordinators who work with physicians concurrently to obtain complete, accurate documentation and capture the secondary diagnoses."

On the flip side, Scott notes that using 3M APR DRGs involves new skill sets for lots of people: "People like to learn new things and they all want job enhancement skills, so this is really good for the coders and the coordinators. We have real-time objective measurements, and they can see them concurrently—not one year later—so it's very rewarding work."

Physicians get on board

Hospital physicians are also interested in the results of using the **3M™ APR DRG Classification System** and have become more responsive to queries about the medical records.

"They understand all the people and organizations that are profiling us," says Scott. "When we're talking

about reimbursement to the hospital, they may not be as interested. However, hospital profiling is a totally different thing. The physicians understand how they fit into it better, so it's created more buy-in."

Hays agrees, adding, "The physicians are proud of the work they do, and if they are going to be compared against their peers, they want to make sure the data accurately reflects the care they're providing."

Applying 3M expertise

Vanderbilt's relationship with 3M began long before implementation of 3M APR DRGs. About 10 years ago, 3M consultants began working with the hospital to help coders and case managers collect the data that more accurately reflects their patient mix. That early experience transitioned into 3M consultants helping the hospital use 3M APR DRGs. 3M personnel track the hospital's case mix index and provide quarterly reports showing trends across the hospital related to risk of mortality and severity of illness.

Future plans for 3M products at Vanderbilt include implementing **3M's Present on Admission (POA) software upgrade**. POA reporting will be required by the state of Tennessee beginning in May 2007, and Vanderbilt plans to use 3M experts when implementing the new POA software.

"We really view 3M as our partner," says Scott. "In fact, we've helped them develop the POA software. The consultants have told us some of the things they have in mind and we've given them small hints on making the software more user-friendly."

The 3M APR DRG advantage

3M APR DRGs provide a clinically-based severity-measurement system that offers precise metrics on the clinical complexity of your patient population. Developed by 3M, the methodology is widely adopted by the provider industry and healthcare researchers for measuring hospital performance and outcomes.

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