

Reducing radiologist burnout at Carle Foundation Hospital

How mPower Clinical Analytics helped achieve equitable workloads and balance.

Challenge

- Reduce excessive workloads for radiologists
- Improve abilities to meet SLA requirements
- Enhance readability of exams and cases
- Prevent potential burnout

Solution

- mPower Clinical Analytics
- PowerScribe Reporting
- PowerConnect Actionable Findings

Results

- Enhanced access to data
- Insights to drive radiologist staffing and practice improvement decisions
- More equitable work distribution and positive shift in group dynamics
- Faster turnaround time with increased ED and referring provider satisfaction
- Improved results tracking and patient follow-up

Optimizing radiology performance with easy access to actionable insights

Carle Foundation Hospital has been serving east-central Illinois for more than a century. With three inpatient facilities, 12 physician clinic locations, two outpatient surgery centers, and an integrated health insurance company, the 27 radiologists who work for Carle handle an abundance of cases on a day-by-day basis.



“At the end of the day it’s more than numbers. Data tells us about people, about relationships. It’s about patient care and safety, and as leaders, analytics are another tool to make our practices better and improve how we care for patients.”

Juan J. Jimenez, MD, Associate Medical Director
Carle Foundation Hospital

Over the last few years, radiologists began to express concerns about their excessive workloads. Associate Medical Director at Carle, Juan J. Jimenez, MD, became committed to understanding the factors contributing to potential burnout among his radiology colleagues. As part of his role, Dr. Jimenez participates on the Carle Wellness Committee, which puts him in a unique position to not only understand the effects of provider burnout among his colleagues but also to help alleviate the burdens that contribute to it.

“There was a general sense of dissatisfaction among some members of our team that some providers were cherry-picking the so-called easier exams while avoiding other, more onerous exam types,” explains Dr. Jimenez. “In addition, radiologists on the night shift complained of excessive workloads and an inability to meet their SLA requirements. These were two key challenges we needed to address.”

No more cherry-picking: Understanding what types of exams are on the worklist starts with robust data

According to Dr. Jimenez, the first step was to determine how much of a problem cherry-picking was, as well as how often it was happening and who might be doing it. He began his investigation with data from PowerScribe to both identify the number of exams radiologists read over a period of time and to associate the types of cases that were more difficult and time-consuming. Dr. Jimenez discovered that, indeed, certain radiologists were covering more of the complicated cases than their colleagues were.

“We could see in black and white who was suffering the most (and the least), but despite providing feedback over several months, we weren’t getting the behavior changes we needed,” Dr. Jimenez notes.

The analytical process evolved and became automated when Carle adopted mPower Clinical Analytics.

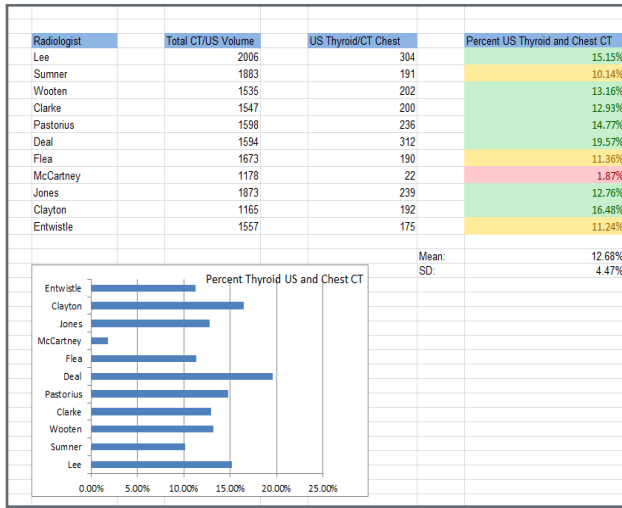
With mPower, organizations like Carle can easily retrieve detailed radiology data from a single self-service platform instead of depending on centralized data management departments.

“We could accurately identify the people who fell outside the curve in terms of interpreting those more onerous exams and then present them with the data to encourage them to pull their weight.”

Juan J. Jimenez, MD

“We were able to set up automatic, recurring reports, which were much easier to manage,” says Dr. Jimenez, who relied on that data to start tracking and identifying trends. Through this robust dataset, he discovered that the easier-to-read cases were disappearing from the worklist more frequently than the more difficult cases, and he could identify which providers were doing it most often. “We could accurately identify the people who fell outside the curve in terms of interpreting those more onerous exams and then present them with the data to encourage them to pull their weight,” says Dr. Jimenez.

Within a few months, the data from mPower revealed that the more complicated cases were more balanced among Carle radiologists; a corresponding, positive shift in group dynamics emerged as well. “The data is powerful and easy to extract and study. It gave us what we needed to set good expectations. Our staff is much happier now that the work is distributed more equitably—several people have mentioned how much nicer it is that everyone reads exams straight down the worklist in the order they should be read. It’s a great success story for our group.”



Data obtained using Nuance’s analytics solutions
(Not real names)

Optimizing night shift coverage with actionable insights from mPower

In addition to understanding exactly how exam types were distributed among radiologists at Carle, Dr. Jimenez also received feedback that the dedicated nighttime radiologists were covering a significant amount of workload left over from the daytime teams. “Our night crew was starting each shift way behind and quickly getting buried, which caused problems in terms of maintaining necessary turnaround times, and it was contributing to burnout. The effects were especially pronounced on the weekends,” he explains.

Dr. Jimenez again turned to mPower to dig into the details. By exploring specific periods of the day, shift

by shift, Dr. Jimenez discovered that the night shift radiologists were reading at a rate near the top of the recommended workload, while daytime radiologists were less busy (Table 1).

Night shift	Day shift
6.3 RVU per hour	4.8 RVU per hour

Table 1

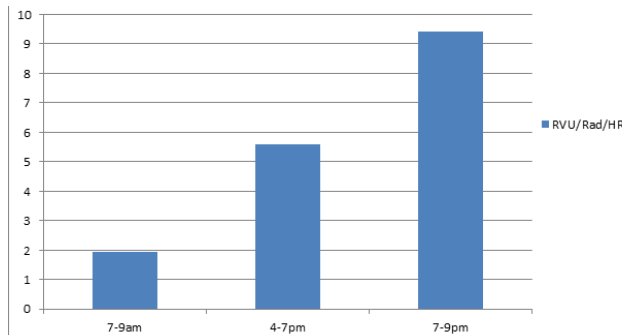
“We all know that’s not the whole story, though. I was able to go back to mPower and look at each hour of the day. On the weekends, 4-7pm was our busiest time, but we had two radiologists working, so they were busy but not critically so. However, from 7-9pm, we went down to one radiologist on duty, and that person was working well over the recommended benchmark productivity,” Dr. Jimenez notes (Table 2).

4-7pm	7-9pm
5.6 RVU per hour per radiologist	9.4 RVU per hour one radiologist

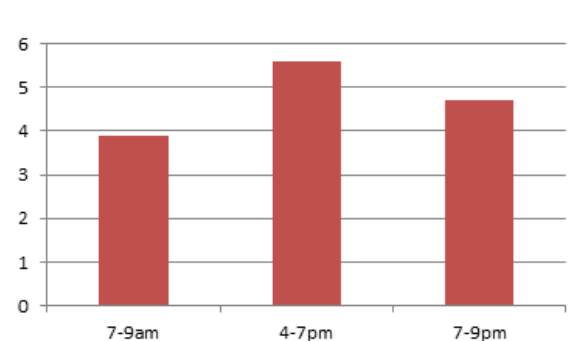
Table 2

The department explored a few options for optimizing night shift coverage and decided the best course of action was to stagger shift coverage so that two radiologists would be on duty until 9pm to alleviate the excessive workload during those busier hours. “Our night crew is satisfied by this solution and the more reasonable workload expectations. In addition, our ER is happier as their reports are turned around more quickly, which has a good impact on patient care,” he says.

Hourly Productivity
Old Schedule



Hourly Productivity
Staggered Shifts



Analysis driven by mPower let Carle look closely at productivity data down to the hour. Carle could make informed decisions about how to staff their department. Carle now staggers the weekend night shift coverage to ease the burden of the night crew.

“Time is money and having the ability to look at this information on my own, without relying on others, truly has an impact on patient care.”

Juan J. Jimenez, MD

More than numbers, “data tells us about people”

Dr. Jimenez says a key advantage of mPower Clinical Analytics is the speed with which he can access data and insights and make decisions. “Time is money and having the ability to look at this information on my own, without relying on others, truly has an impact on patient care.”

For example, Carle is now combining mPower and the PowerConnect Actionable Findings solution to support their results tracking and follow-up, identifying patients for whom follow-up exams are overdue. He notes that they’ve been able to optimize their practice and encourage patients to come back for their necessary exams, even catching several actionable findings for patients who might have otherwise slipped through the cracks.

“At the end of the day,” Dr. Jimenez concludes, “it’s more than numbers. Data tells us about people, about relationships. It’s about patient care and safety, and as leaders, analytics are another tool to make our practices better and improve how we care for patients.”

About Nuance Communications, Inc.

Nuance Communications, Inc. is a leading provider of voice and language solutions for businesses and consumers around the world. Its technologies, applications and services make the user experience more compelling by transforming the way people interact with devices and systems. Every day, millions of users and thousands of businesses experience Nuance’s proven applications. For more information, visit www.nuance.com/healthcare or call 1-877-805-5902. Connect with us through the healthcare blog, [What’s next](#), [Twitter](#), [LinkedIn](#) and [Facebook](#).
