



Case Study:

Boca Raton Regional Hospital

A conversation with the staff at Boca Raton Regional Hospital’s Christine E. Lynn Women’s Health & Wellness Institute, including Shakira Sarquis-Kolber (Director of Women’s Imaging), Dr. Kathy Schilling (Medical Director and Radiologist), Nicole Coates (Systems Analyst); and Lisa Johnston (Lead Clinical Scientist at Volpara Solutions).

Shakira routinely logs into VolparaEnterprise to ascertain the status of quality, referrals, and productivity throughout the five centers. Having only been installed in June 2016, it has already become one of her most valuable resources in this busy imaging practice.

Boca Raton Regional Hospital Breast Imaging (/yr.)

- 29,000 screens
- 7,600 diagnostics
- 10,500 ultrasounds
- 2,800 biopsies
- 7 doctors
- 21 technologists
- 477 cancers detected

“VolaraEnterprise is an invaluable tool for understanding the quality of breast imaging services we deliver.” —Shakira Sarquis-Kolber



Shakira: The impact of VolparaEnterprise in our facility was immediate. After we installed it, we just ran it for a month to build up a body of data. The team at Volpara then helped us learn how to use the software by reviewing the data that we’d collected so far.



Nicole: We immediately noticed that a large number of dose alerts had been generated in that short period of time. This information from VolparaEnterprise quickly showed us that, in fact, all the dose alerts were coming from a single machine.

“Without VolparaEnterprise this [dose alerts issue] may have gone undetected until the next six-month physicist visit.”



Dr. Schilling: It is obviously important that this information came to light. No facility wants to learn that they may be exposing a woman to more radiation than is necessary.



Nicole: We then used VolparaEnterprise to investigate the root cause of the dose alerts. We compared the performance of the x-ray machines in the department and found that the dose distribution was much worse on the one machine; however, it was an issue with calibration, not actual dose deliverance. Once the physicist recalibrated the system, the alerts were minimal.

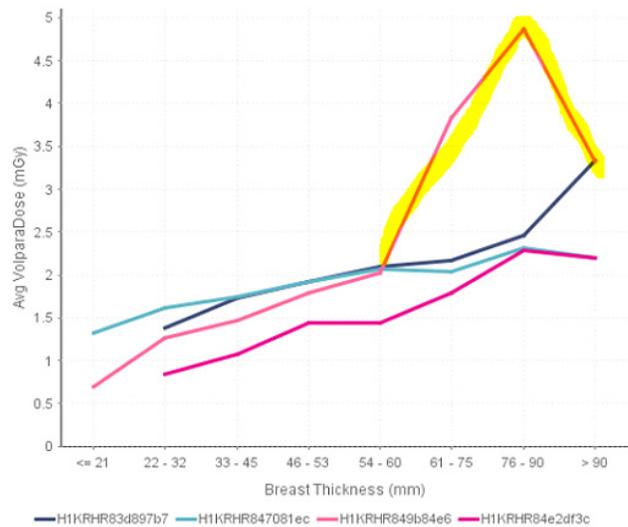


Shakira: It was pretty obvious from VolparaEnterprise that the problem was isolated to a single machine.



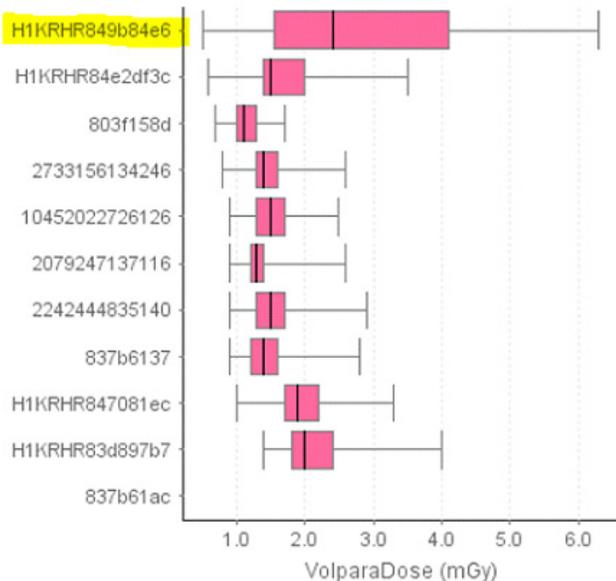
Nicole: VolparaEnterprise revealed that the machine in question was reporting those dose alerts only within a certain range of thicker breasts.

VolparaDose vs. Breast Thickness



Nicole (cont'd): Also, we were able to see that fall-outs were occurring when imaging women with thicker breasts.

VolparaDose by Mammography:



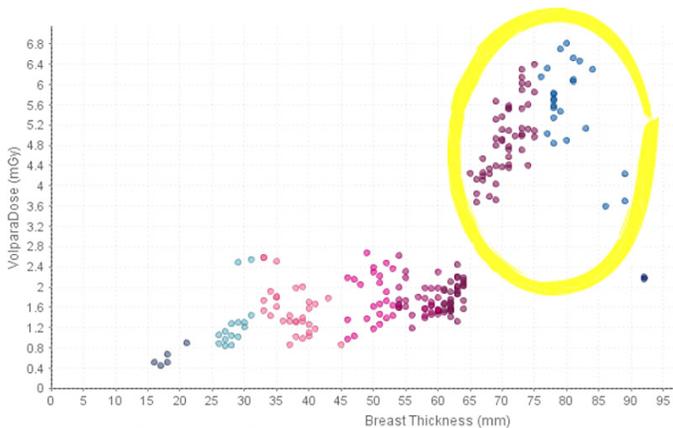


Lisa: By looking at the physics parameters in the DICOM headers for two very similar cases imaged on the identified machine and one other, we were able to figure out that one machine had an HVL setting that was very, very different than that of the other machine.



Shakira: We are now beginning to use VolparaEnterprise to reshape the training for our technologists. VolparaEnterprise contains the amazing capability to analyze patient positioning. We can now get objective measurements and feedback on the quality of positioning by our technologists. We can then personalize training based on their needs, and partner them up with other staff who excel in their area of opportunity.

Volpara Dose



Dr Shilling: In the end, it turned out to be a very simple configuration issue during a physicist’s visit. The problem was easily corrected, and only affected the reported dose—the actual doses were all within the normal ranges.

That was great news for our patients. It’s really important to note that without VolparaEnterprise this may have gone undetected until the next six-month physicist visit.

	Normal	Problem
Entrance Dose mGy	11.5	9.5
HVL	0.493	68.9
Glandularity %	11.48	16.52
Target	Mo	Mo
Filter	Rh	Rh
Filter Thickness mm	0.03	0.03
Breast Thickness mm	76	71
Volpara Dose mGy	2.19	5.88
Manual Volpara Dose mGy	2.3	5.7



Dr Schilling: Because we want every mammogram to be of the best quality, we can now use VolparaEnterprise as a guide for training our technologists. By discovering which aspects of positioning each individual tends to struggle with, we can focus on those specific areas and then watch for improvement both in the short term and the long term.

“VolparaEnterprise has enabled us to implement new quality processes that will help us ensure that every woman’s mammogram is the very best we can offer.”



Nicole: And because VolparaEnterprise scores each image of a screening mammogram, we have powerful statistics that pinpoint the problem areas.



Shakira: VolparaEnterprise has given us the ability to monitor performance. We no longer have to wait for ACR accreditation or a doctor to share their concerns before we learn about an issue.



Nicole: One very important aspect of VolparaEnterprise comes into play with ACR certification. Since VolparaEnterprise inspects each image, it can produce a list of all the cases they deem “Perfect” from a quality perspective. This gives us an advantage in searching for cases to submit for the certification. As a result, the process is streamlined and provides a great head start.



Dr Schilling: In the end, it’s all about our patients. The community of Boca Raton was already lucky to have this state-of-the-art breast imaging center staffed with dedicated professionals who truly care about their well-being and long-term health. Adding VolparaEnterprise has enabled us to implement new quality processes that will help us ensure that every woman’s mammogram is the very best we can offer.

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