



KONICA MINOLTA

**Contact:**

Mary Beth Massat  
224.578.2388  
mbmassat@massatmedia.com  
<https://healthcare.konicaminolta.us>

**FOR IMMEDIATE RELEASE**

## **Study Demonstrates the Clinical Value of Dynamic Digital Radiography to Quantitatively Diagnose Diaphragm Dysfunction**

Wayne, NJ, February 12, 2025 – Konica Minolta Healthcare Americas, Inc., is pleased to announce the publication of a case study by clinicians in the pulmonary and radiology departments at [ASST Fatebenefratelli Sacco](#) (Milan, Italy) demonstrating the use of [Dynamic Digital Radiography \(DDR\)](#) to help definitively diagnose diaphragm dysfunction. The study, published in the journal [Diagnostics](#), highlights the clinical value of DDR through its unique ability to evaluate diaphragm movement in real time and integrate dynamic functional information with static anatomical data to provide a quantitative assessment of diaphragmatic movement, including excursion and speed.

DDR was used to evaluate a 46-year-old male with a past history of smoking and a 2021 SARS-CoV-2 infection for unexplained dyspnea and reduced exercise tolerance. Spirometry values were below predicted values and a standard chest radiograph depicted an elevated right hemidiaphragm that was not present on a prior CT examination during his SARS-CoV-2 infection.

With the dynamic functional imaging capability of DDR, the authors could visualize thoracic and pulmonary motion and track diaphragm movement. Additional post-processing of the DDR data using Konica Minolta's Intelligent Workstation (IWS, also known as DI-X1) enabled the measurement of diaphragmatic motion and overall lung mobility, highlighting regional differences in ventilation of both lungs. As a result of the DDR examination, the patient was referred to a thoracic surgeon for possible plication of the right diaphragm.

“Diagnosing diaphragm dysfunction is challenging due to its varied symptoms and causes. While conventional chest X-rays and ultrasound can offer clues, additional imaging and tests are often needed for a precise diagnosis,” says [Michaela Cellina](#), Head of Imaging Research and a radiologist with ASST Fatebenefratelli Sacco. “Dynamic Digital Radiography is an innovative imaging technique that can be captured at the same time as a traditional static chest X-ray, providing valuable real-time insights for a quick and confident diagnosis.”

DDR is the only FDA-cleared radiography solution that enables visualization of anatomy in motion. It acquires up to 15 sequential radiographs per second and processes them as a cine loop, enabling clinicians to observe the physiological

cycle as well as individual radiographs. No physician presence is required, radiation dose is lower than an average fluoroscopy exam and the dynamic images can be captured with the patient sitting, standing or on a table.

“Konica Minolta congratulates Dr. Michaela Cellina, Dr. Elisa Calabro and their colleagues on the publication of this case study that demonstrates the ability of one examination – DDR – to deliver a definitive diagnosis of the cause of dyspnea,” says [John Sabol](#), PhD, Clinical Research Manager, Konica Minolta Healthcare. “Adding DDR to a conventional chest X-ray, which is routinely acquired in these cases, may eliminate the need for additional tests or imaging studies, helping reduce costs to the patient and health system, and enable a more rapid diagnosis.”

#### **About Konica Minolta Healthcare Americas, Inc.**

Konica Minolta Healthcare is a world-class provider and market leader in medical diagnostic imaging and healthcare information technology. The company’s focus is to contribute to life-changing advances through the transformation of primary imaging, allowing the invisible to be seen. Primary imaging, the most commonly used medical imaging technologies, include X-ray, ultrasound and imaging management systems. By advancing these readily available technologies, we can bring greater diagnostic capabilities to the greatest number of people.

With 150 years of endless innovation, imaging is in Konica Minolta’s DNA. From roots as a camera and film manufacturer, the company has cultivated its own technologies and continues to evolve techniques for visualizing what is not visible. Innovation allows the company to be a strong strategic partner, understanding what value means to customers and how Konica Minolta’s innovations can address specific needs and lead to better decisions, sooner.

Konica Minolta Healthcare Americas, Inc., headquartered in Wayne, NJ, is a division of Konica Minolta, Inc. For more information on Konica Minolta Healthcare Americas, Inc., follow us on [LinkedIn](#), [Twitter](#) and [Facebook](#), or visit <https://healthcare.konicaminolta.us>.