



Munson Healthcare
Physician Partners

IT Solutions: Prescriptions for Efficiency



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Radiology Online: RadNet Offers Immediate Access to Imaging at All Munson Healthcare Facilities

Increased opportunities for clinical information sharing and collaboration are among the advantages of RadNet, according to members of Munson's Medical Staff. Launched in early June, Munson Healthcare's new radiology information system interfaces with the imaging archive and integrates with the inpatient EMR, giving authorized users throughout Munson Healthcare electronic access to complete radiology information and images, from any site in the system, or from home.

Todd Kennel, MD, a Munson Medical Center (MMC) radiologist said, "RadNet gives us the ability to perform better imaging study interpretations; offer faster, more efficient service; and realize efficiencies in radiology practice and cost-savings to the system."

Key RadNet Features Lead to Improved Patient Care

Physicians can view studies from other sites. This capability is especially important in MMC's role as a verified Level II Trauma Center. A trauma patient at any of the partnering hospitals who requires transfer to MMC can be imaged at that facility, and a specialist at MMC can pull up the images and have the appropriate treatment team in place by the time the patient arrives at MMC's ER.

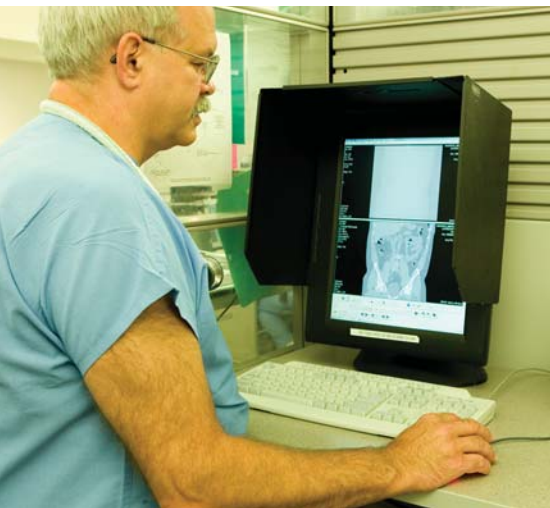
Physicians can view previous imaging for comparison.

Because the image-viewing capability is integrated with Power Chart, clinicians can see previous imaging and any intervention or other significant history in the interim. This is particularly

useful for oncologists and others who treat patients over a longer period of time and rely heavily on imaging to drive appropriate management.

Information is shared rapidly.

As soon as each person signs off on his or her task, the information is available to authorized users throughout the system.



RadNet is now a key tool in collaborative consults between referring hospitals and MMC.

Zimmerman, MD, Lauds RadNet's Patient Care Benefits

Neurosurgeon J. Eric Zimmerman, MD, said reducing time to treatment is one of the key RadNet benefits he sees in his practice.

"Now, when I talk with a physician from another facility, I can go to my computer, pull up the patient's imaging, and often make a diagnosis and a recommendation as to how to proceed. Before RadNet, the patient would have had to make an appointment and bring his images to me. Now, he may have already completed the next step in the time it would have taken to get an appointment with me."

"RadNet can also play a key role in emergent situations. When a patient with a neurosurgical emergency is being transferred to MMC, I can pull up the patient's imaging studies, even from home, and be thinking about my treatment plan while I drive to the hospital."

The sooner exam results are back to the ordering physician, the sooner appropriate treatment can begin.

Subspecialist radiologists can interpret exams remotely.

For example, a neuroradiologist can read a brain CT scan immediately even if he/she is not on site.

Multiple radiologists can assist with urgent exams at peak times, such as in a multiple trauma situation.

Images are viewable by multiple physicians simultaneously, promoting more productive consultation.

RadNet adds flexibility for viewers. RadNet offers two ways to access images – through PowerChart and also through web-based software that allows users to see a folder of all archived images associated with a particular patient.

RadNet offers portability of images. Patients who want to take their imaging with them are provided with a CD complete with all images. Lost or misplaced films are a thing of the past.

Next steps for the RadNet rollout include adding image access points. "As we go film-free, we need to ensure that we have image access points where our clinicians need them," said Sr. Vice President Kathleen McManus, who oversees Munson Medical Center's Radiology program. "In the near future, we will be implementing imaging capacity in the operating rooms, allowing clinicians to pull up images on 40-inch monitors to assist in surgical procedures."

Munson Home Health Offers Vital Links to Patients



Barbara Taylor, RN, monitors patient vital signs from across northern Michigan at her Traverse City office.

Across northern Michigan, Munson Home Health patients hear a gentle reminder about recording their vital signs. It comes from a machine.

“It’s a little machine that looks like a clock radio,” said Home Care Director Meredith Goodrick. “We have the ability to monitor vital signs, pulse oximetry, blood sugar, and weights.” The machine also can be programmed to ask the patient up to 10 questions where the answer should always be “No.”

Operational since March, the program now has 70 patients enrolled from across northern Michigan. Most patients are elderly, homebound, and suffering from at least one chronic illness. Goodrick said the goal of the program is to keep patients out of the emergency room.

“ER visits for Home Care Telemedicine patients are already down 5 percent,” Goodrick said. The program also promotes greater patient safety and saves money because usually a nurse only needs to visit once per week since vital signs are being examined every day.

“We have a registered nurse seven days a week who examines all of the data,” she said. If a patient’s blood pressure or heart rate becomes elevated past the figures established with the patient’s physician, an alert shows red on a computer screen in a cubicle at Home Health’s office at Munson Community Health Center in Traverse City.

On a recent day, Barbara Taylor, RN, reviewed the lines of information on the computer screen. Red lines across a patient’s data mean she needs to make a phone call.

“I make 20 or 30 calls a day,” she said. Sometimes patients or care providers call with a question or just for some encouragement. **When a patient’s vital signs raise concerns, she can fax a report with the information, including graphs, directly to the patient’s physician.**

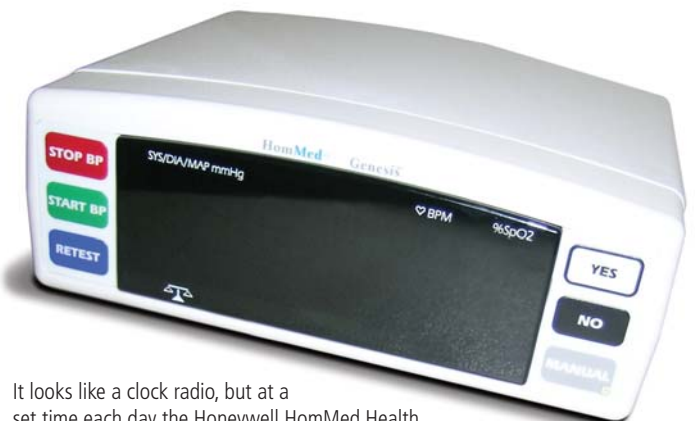
Currently the program can handle 110 patients, but Goodrick said Home Health has applied for a grant in hopes of purchasing 50 additional machines.

There is no charge to the Medicare program for the telemonitoring and physicians can bill Medicare for care plan oversight when they review the faxed report. Goodrick said there are bills pending in Congress that call for reimbursement for telemonitoring health care.

In Manistee, patient Alice Packer-Mainfort offered praise for the telemonitoring program. “It works beautifully,” she said. “I highly recommend it.” Packer-Mainfort said she had no problem operating the machine daily to check her pulse, blood pressure, or oxygen levels. She also appreciated the professionalism of the Munson Home Health staff.

“Everyone there has just been outstanding,” she said. “Everyone who comes, from nurses to therapists, couldn’t be more friendly or nicer. It’s been a real neat experience.”

Physicians interested in learning more about the program for their patients can call **1-800-252-2065**, or the Traverse City number at **(231) 935-6520**.



It looks like a clock radio, but at a set time each day the Honeywell HomMed Health Monitoring System reminds patients to take their vital signs.

Munson to Host Electronic Medical Records Products for Physician Offices

Physicians and information specialists at Munson Healthcare are engaged in an ambitious effort to develop and implement an Electronic Medical Records (EMR) system that captures, manages, and shares patient information from ambulatory encounters throughout the system. The effort follows the 6-year, \$40 million

implementation of an inpatient EMR utilized by physicians and clinicians at Munson Medical Center, Mercy Hospitals in Cadillac and Grayling, Paul Oliver Memorial Hospital in Frankfort, and Kalkaska Memorial Health Center.

“Our goal is to ensure that regardless of the patient’s point of entry into Munson Healthcare, his or her provider has electronic access to the information necessary to make the best clinical decisions,” said Pete Springsteen, MD, a family physician and Medical Director for Information Systems for Munson Healthcare.



“MMC has negotiated discounts and is offering hosting options, and creating interfaces with the Munson inpatient EMR.”

— Chris Podges
Vice President and Chief Information Officer
Munson Healthcare

Ambulatory Information Critical

For most patients, well over half of all medical encounters occur in the outpatient setting, and most clinical information is generated in an outpatient setting. Thus it is critical to capture data from ambulatory visits and to integrate outpatient with inpatient information in order to have a complete

Munson Healthcare’s Vision for Ambulatory EMR

Every patient who walks into a clinic, physician’s office, or health facility within or related to Munson Healthcare, will be seen by a provider who has access to the appropriate health information of that person – medical history, allergies, medications, chronic issues, problem list, recent diagnostics, recent emergency department visits, recent hospital stays, and appropriate demographic/insurance information.

Creating an EMR for Munson Healthcare ambulatory patients will reduce time to treatment and the potential for errors.

clinical picture of each patient. “Just-in-time electronic access to patient records from a physician’s office can significantly reduce time-to-treatment and the potential for errors, particularly in an emergent situation,” noted Dale Blum, MD, Medical Director of Munson Medical Center’s ER.

Although it will confer benefits for all, the successful implementation of an ambulatory EMR will mean different things to patients, clinicians, and the health care system as a whole.

Patients can expect the clinical information to follow them throughout the system, reducing the need to repeat tests and duplicate information every time they visit a new provider. For physicians, it will be an opportunity to create and maintain clinical records for their own patients and to access test results and documentation of encounters outside their offices. And for Munson Healthcare, a comprehensive repository of patient data, generated from and available to all authorized users in the network, will mean a shared information network that enhances clinicians’ ability to provide the best care.

Ambulatory EMR Options

Ultimately, NextGen, A4, and Misys EMR products received high-marks from physician practices and the Munson IS team. “They offer automation of business and clinical systems, the ability to create and manage patient information, and the vendors have expressed a willingness to create interfaces with key areas of the inpatient EMR, including sharing of core clinical data, direct import of test results, ordering, and scheduling of procedures at Munson Medical Center,”

said Chris Podges, Vice President and Chief Information Officer for Munson Healthcare.

Next Steps

Munson’s goal is to assist primary care offices throughout northern Michigan. Currently, with support from a federal grant, Munson’s interface team is already working with the Mercy Family Care offices in Crawford and Roscommon counties to create an interface between the NextGen EMR product that they have chosen and Munson’s inpatient PowerChart EMR. The interface team will also be working to write interfaces for practices utilizing A4 and Misys EMRs.

“We hope to encourage physicians to choose one of these EMR products. MMC has negotiated discounts and is offering hosting options, and creating interfaces with the Munson inpatient EMR,” added Podges. “We value this opportunity to work together to create an information network that will benefit everyone.”

For more information on ambulatory EMRs and integration with the Munson Healthcare inpatient EMR, contact:

Pete Springsteen, MD
Medical Director of Information Systems
(231) 929-1234 or (231) 935-2426

Chris Podges
Vice President and Chief Information Officer
(231) 935-6501

Clinical IT: On the Horizon

In the coming year, Munson will begin implementing further innovations in information technology designed to optimize clinical care, including:

Expand Embedded Clinical Guidelines

In addition to patient-specific information, PowerChart offers clinicians access to evidence-based care guidelines and alerts to help physicians provide standard-of-care in all patient encounters. Currently PowerChart contains embedded guidelines for treating community-acquired pneumonia and myocardial infarction.

Electronic Signature Capability

Electronic signature capability will allow clinicians to sign reports electronically as soon as they are generated. The reports become part of the medical record with the electronic signature, a convenience currently available only with Dragon dictation.

FirstNet

This Emergency Department information system will allow the department to manage patient flow electronically. Nurses and physicians will be able to enter patient information on individual tablet PCs, and flow information will be displayed on a large plasma screen that functions like the old whiteboards. All information – patient registration, physician and nursing documentation, tests ordered, tests pending, and any results – will be available in one place rather than on clipboards throughout the unit.

Surgery Information System

This electronic system for managing process flow in the operating room will also help surgical staff manage preparation of the room to ensure the appropriate staff and materials are available for the planned procedure.

Voice Recognition Software Gives Immediate Access to Dictation



Stephen Morgan, DO, dictates patient information using the computer program “Dragon Naturally Speaking.”

Dragon NaturallySpeaking, voice recognition software that allows users to dictate patient information directly into PowerChart, is now a reality at Munson Urgent Care in Traverse City. “Dragon allows us to get reports back to physicians much faster, and that helps them provide better, safer follow-up and continuing care for their patients,” said Stephen Morgan, DO, an Urgent Care physician.

Several other Munson services are using Dragon, but Urgent Care, a freestanding, high-volume walk-in clinic with more than 30,000 visits per year, is Munson’s first large clinical department intending to use Dragon for patient reports.

Urgent Care Providers Quickly Share Information

Dragon allows a clinician to dictate a voice-activated transcription directly into the patient’s medical record. Other providers can access the information immediately, instead of waiting for it to be transcribed and entered in the medical record. Particularly during the summer season, transcriptions can be backlogged for as long as a week after the patient visit. Future plans call for an instant notification system for providers when there is a new report on one of their patients.

Morgan said, “The immediacy of information availability is useful for all patients, but particularly for our typical summer season population. Recently I saw a young boy who was visiting his grandparents here and made a new diagnosis of diabetes. Before he left the clinic, I was able to dictate, sign, and print a copy of my notes for the parents to take to their physician at home.”

Templates Reduce Dictation Time

The Urgent Care Physicians have constructed disease-specific templates for reporting on conditions commonly seen in Urgent Care, and physicians can develop additional tem-

plates as needed. In addition, by using so-called “command words,” physicians can call up macros, or pre-developed blocks of text that are automatically inserted in the dictation. Morgan said, “A typical report includes pertinent negatives documenting conditions not seen or expected as part of a normal exam. By using the command words and templates that can be called up – for example ‘normal heart’ – our goal is to take Dragon to the same speed as current dictation.”

To use Dragon, a physician clicks on the patient’s name in PowerChart. The patient’s birth date, date of visit, and other demographic data are already in PowerChart, so the physician does not have to enter that information. The physician says the name of the template wanted, dictates words and commands into the template, and says “sign chart.” The record is immediately available to other providers who have access to PowerChart, or it can be printed out and handed to a patient or faxed to another clinician.

Physicians interested in learning more about Dragon Dictation can call Stephen Morgan, DO, at (231) 935-8699, or Don Cox, Munson Information Systems, at (231) 935-6074.

Physician Opportunities

Physician Opportunities with Munson Healthcare and Affiliates

A nationally-recognized system of six hospitals with more than 447 physicians, Munson Healthcare and its affiliated hospitals form a nonprofit system offering services to people from 24 counties.

If you have a colleague interested in relocating to northern Michigan, contact David McGreaham, MD, Munson Medical Center VPMA, at **(231) 935-6156** or dmcgreaham@mhc.net.

Visit munsonhealthcare.org for more information on opportunities at Munson Healthcare, or contact Deborah Glicker at **(231) 935-5890** or Joan Alt at **(231) 935-5889**.

Additional Opportunities in Northern Michigan

Primary and specialty care opportunities at Alpena Regional Medical Center include: Dermatology, Emergency Medicine, Gastroenterology, General Surgery, Med/Peds, Orthopaedics, Radiology, and Sleep Medicine. For more information, visit agh.org or contact Diane Sims at **(989) 356-7540**.

For information on primary and specialty care opportunities at Otsego Memorial Hospital in Gaylord, visit otsegomemorialhospital.org or contact Skip Kasprzak at **(989) 731-7707**.

For information on primary and specialty care opportunities at War Memorial Hospital in Sault Ste. Marie including Cardiology, visit warmemorialhospital.org or contact Henry Oklat at **(906) 635-7899**.

Specialty	Affiliate	Location
Anesthesiology	West Shore Medical Center	Manistee
CRNA	Munson Medical Center	Traverse City
Dermatology	Munson Medical Center	Traverse City
Endocrinology	Munson Medical Center	Traverse City
Family Practice	Kalkaska Memorial Health Center	Kalkaska
Gastroenterology	Munson Medical Center	Traverse City
Gastroenterology	Munson Medical Center	Traverse City
Hematology/Oncology	West Shore Medical Center	Manistee
Hospitalist	Mercy Hospital Grayling	Grayling
Hospitalist	Mercy Hospital Cadillac	Cadillac
Infectious Disease	Mercy Hospital Cadillac	Cadillac
Internal Medicine	West Shore Medical Center	Manistee
Internal Medicine	Mercy Hospital Cadillac	Cadillac
Internal Medicine	Munson Medical Center	Traverse City
Neurology	Munson Medical Center	Traverse City
Orthopaedic Hand Surgeon	Munson Medical Center	Traverse City
Orthopaedic Surgery	Mercy Hospital Cadillac	Cadillac
Orthopaedic Surgery	Munson Medical Center	Traverse City
Orthopaedic Surgery	Mercy Hospital Grayling	Grayling
Otolaryngology	Munson Medical Center	Traverse City
Pediatrics	Munson Medical Center	Traverse City
Plastic Surgery	Munson Medical Center	Traverse City
Psychiatry	Munson Medical Center	Traverse City
Psychiatry - Adult	Munson Medical Center	Traverse City
Rheumatology	Mercy Hospital Cadillac	Cadillac
Rheumatology	Munson Medical Center	Traverse City
Urology	West Shore Medical Center	Manistee

Munson Medical Center CME

Munson Medical Center provides a wide variety of CME opportunities, including several program series that are available via the REMEC TeleHealth Network, MMC's interactive video conferencing system.

For more information on CME opportunities offered through Munson Medical Center, visit munsonhealthcare.org or contact Sandy Somers, RN, at **(231) 935-6546** or ssomers@mhc.net.

Munson Healthcare

Munson Medical Center
Munson Home Health
North Flight
Paul Oliver Memorial Hospital

Affiliated Hospitals

Kalkaska Memorial Health Center
Mercy Hospital Cadillac
Mercy Hospital Grayling
West Shore Medical Center