

Medical Imaging Services

2020 & 2022 Board Report

Davis County
HOSPITAL & CLINICS

An Affiliate of
MERCYONE.



Medical Imaging Services Team

Susan Haskell- *Manager, Special Procedures Technologist*

- 19 years at DCHC, 23 years of Imaging experience (X-ray, Mammo, CT)

Holly Glosser- *Special Procedures Technologist*

- 14 years at DCHC, 16 years of Imaging experience (X-ray, Mammo, CT)

Heather Rich- *Ultrasound Technologist, Special Procedures Technologist*

- 5 years at DCHC, 22 years of Imaging experience (X-ray,CT,US)

Stephanie Small- *PRN Special Procedures Technologist, PRN Ultrasound Technologist*

- 12 years at DCHC, 17 years of Imaging experience (X-ray,CT,US)

Medical Imaging Services Team

Chelsey Jones - *Special Procedures Technologist/MRI Technologist*

- 10 years at DCHC, 10 years of Imaging experience (X-ray, CT, MRI)

Matt Rowland - *Special Procedures Technologist/Weekend Technologist*

- 5 years at DCHC, 7 years of Imaging experience (X-ray, CT)

Alyssa Lay - *PRN Radiologic Technologist*

- 5 years at DCHC, 6 years of Imaging experience (X-ray, CT)

Kacie Laux - *PRN Radiologic Technologist*

- 9 months DCHC, New IHCC Graduate (X-ray, CT)

Commitment and Experience



81 years of dedication to
DCHC.



115 years & 9 months of
Medical Imaging experience.

Radiologic Technologist Week 2022



Equipment Updates

Out with the old.....



64 Slice GE Optima 660

In with the New.....



64 Slice Revolution EVO

12/2019

64 Slice Revolution EVO CT.. Installed 12/9/19

- Were able to use the same bolt pattern, so no room renovation needed.
- Still includes the same dose reduction and metal artifact reduction software.
- New Collimators that reduce scatter and reduce power consumption.
 - (Less dose given to the patient and uses less power to operate the machine)
- The newest feature to the machine is called Smart Subscription.
 - This is a cloud-based software subscription service. With prior CT Machines, we had to buy the software and have the field engineer load it on the machine. That version of software was ours to keep until we choose to upgrade.
 - Smart Subscription (SS) allows us to purchase software from the cloud and download it remotely to the machine. It keeps the software current to date. The best part of SS is that if we decide we no longer need that software package or want to get a different option, it is all done through the cloud and our subscription. No extra upgrade fees or trade-ins needed.
 - SS also allows our machine to be monitored remotely. This is to be more proactive and decrease machine downtime.

Workstation for the CT Scanner



- AW Volume Share 7 is an image review and post processing workstation. It has numerous post-processing possibilities but will be primarily used for Dual Energy Spectral Imaging.



Image Based Dual Energy CT Imaging

- Will greatly enhance and aide the Rheumatology Clinic in gout diagnosis.
- Anatomy of interest is scanned with 2 different techniques. Those images are sent to the workstation and reprocessed using the Gout detection software installed.



Gout diagnosis process.....

- Patients will have an initial scan. If gout is diagnosed and all oral medications have failed, patients will be placed on an IV medication. These infusions go in 3-month increments. Patients will then be re-scanned for progress and decided if further treatment is needed or can be discontinued.
- By installing this software, other services and revenues have been added to:
 - Medical Imaging
 - Rheumatology
 - OP Infusion
 - Pharmacy



Mammography - Dueta

- Patient assisted compression for Mammography
 - Under the radiographer's supervision and guidance, women can play an active role in determining their level of breast compression with the help of a remote control.



12/2019

Mammography - Dueta

- GE's Senographe Pristina with Dueta takes the stress and worry out of the screening process and allows women to gain a sense of control. In the case study preformed, 83% of patient's say GE's Senographe Pristina with Dueta was a better experience.



ABI Machine -

- This equipment is used to test Ankle-Brachial Indexes (ABI). The ankle-brachial index test is a quick, noninvasive way to check for peripheral artery disease (PAD) in the legs. This disease occurs when narrowed arteries reduce the blood flow to your limbs. PAD can cause leg pain when walking and increases the risk of heart attack and stroke. The ankle-brachial index test compares the blood pressure measured at the ankle with the blood pressure measured at the arm. A low ankle-brachial index number can indicate narrowing or blockage of the arteries in patient's legs. The equipment can also test for Toe-Brachial Index (TBI) as well as Segmental Pressures, which measures the blood pressure in the legs.



9/24/20

Utilized DCHC Foundation Funds

GE AMX 240 Digital Portable

11/2020



- Able to utilize COVID-19 funds
- Comes with 2 DR Panels
 - 14x17 & 10x12
- Latest Artificial Intelligence (AI) Software
- Auto grid technology
- Badge reader
- Lynix based operating system

Explanation for an UPS for DCHC.....

- MRI system instability has been an increasing issue over the last year with the inconsistency in power provided by the city and SIEC. Upon investigation by DCHC, City of Bloomfield and SIEC staff, it was found that power faults were coming down the power grid and causing the power fluctuations. Continued fluctuations could cause machine down time or complete machine failure with the potential void of machine warranty and service contracts.



Uninterruptible Power Supply (UPS)

- You can't control the quality and consistency of the power delivered from the grid to the hospital. Power events - from spikes and sags to full interruptions - impact the entire facility and are especially critical to diagnostic imaging systems.

5/2021



Philips C-ARM – delivery schedule June 2022



- The name C-ARM derives from the C-shaped arm used to connect the x-ray source and x-ray detector to one another. C-arms are used primarily for fluoroscopic intraoperative imaging during surgical and orthopedic procedures.

Zenition C-arm Highlights



Sleek Profile Trixell FD, Removable Grid, ClearGuide

Tablet like stand UI, Position memory, Dose and frame rate selection, ClearGuide, Virtual Collimation, Help File, Tool tip on stand UI

Color Coding, Bigger C-arm depth, Counter-balanced C

Remote Control & Hand switch with mode toggle

Small X-ray tank, Smart way of filtering, Monoblock Generator, 15% longer Fluoro compared to last generation FD

- FluoTap, FluoroNav
- BodySmart, MetalSmart
- Mode toggle - Hand switch & Foot switch

2019

8

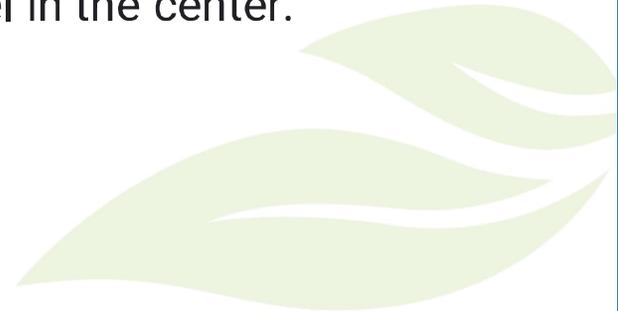
Additional Services Added.....

November 2018

- Expanded partnership with Shared Medical Services to start performing Mobile PET\CT.



- A PET scanner is a **large machine with a round, donut-shaped hole in the middle**. It looks like a CT or MRI unit. Multiple rings of detectors inside the machine record the energy emissions from the radiotracer in your body. The CT scanner is typically a large, donut-shaped machine with a short tunnel in the center.



What is PET\CT used for ??

- A PET scan is an effective way to help identify a variety of conditions, including cancer, heart disease and brain disorders. Providers can use this information to help diagnose, monitor or treat patient's condition.



June 2021

- Dr. Remis, Urologist, began performing ultrasound guided Prostate Biopsy's in the Ultrasound Suite in collaboration with the OP Infusion Nurses.



Looking to purchase FY22-FY23

Upgrade Ultrasound Equipment

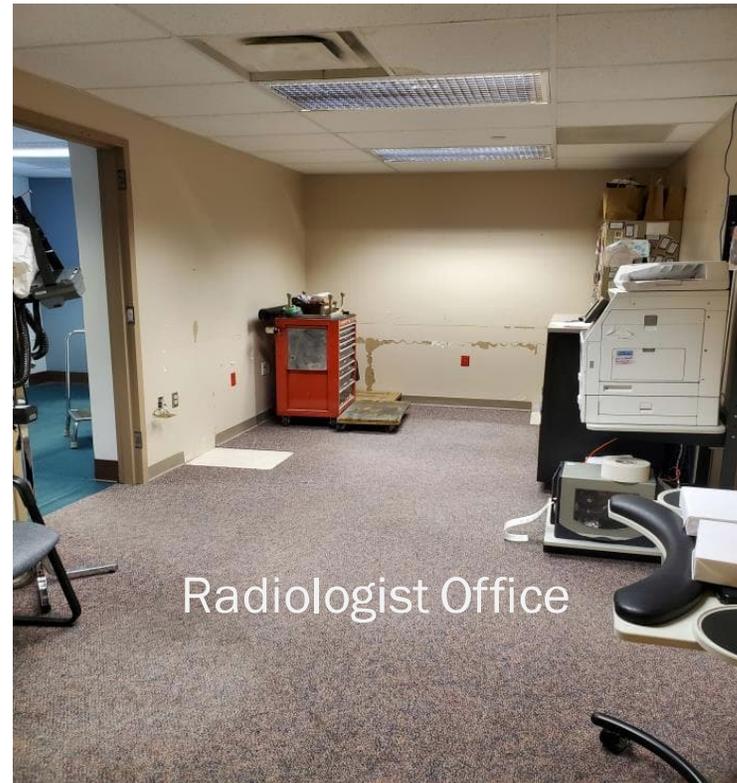
- It offers a wide range of advanced imaging tools and uses artificial intelligence to improve the productivity of workflow.
- **Digital Support Tools include:**
 - remote connectivity
 - performance analysis
 - software and security updates
 - versatile training options.
- Last machine to be upgraded to Windows 10 operating system



Pre-Office Renovation



X-Ray Office

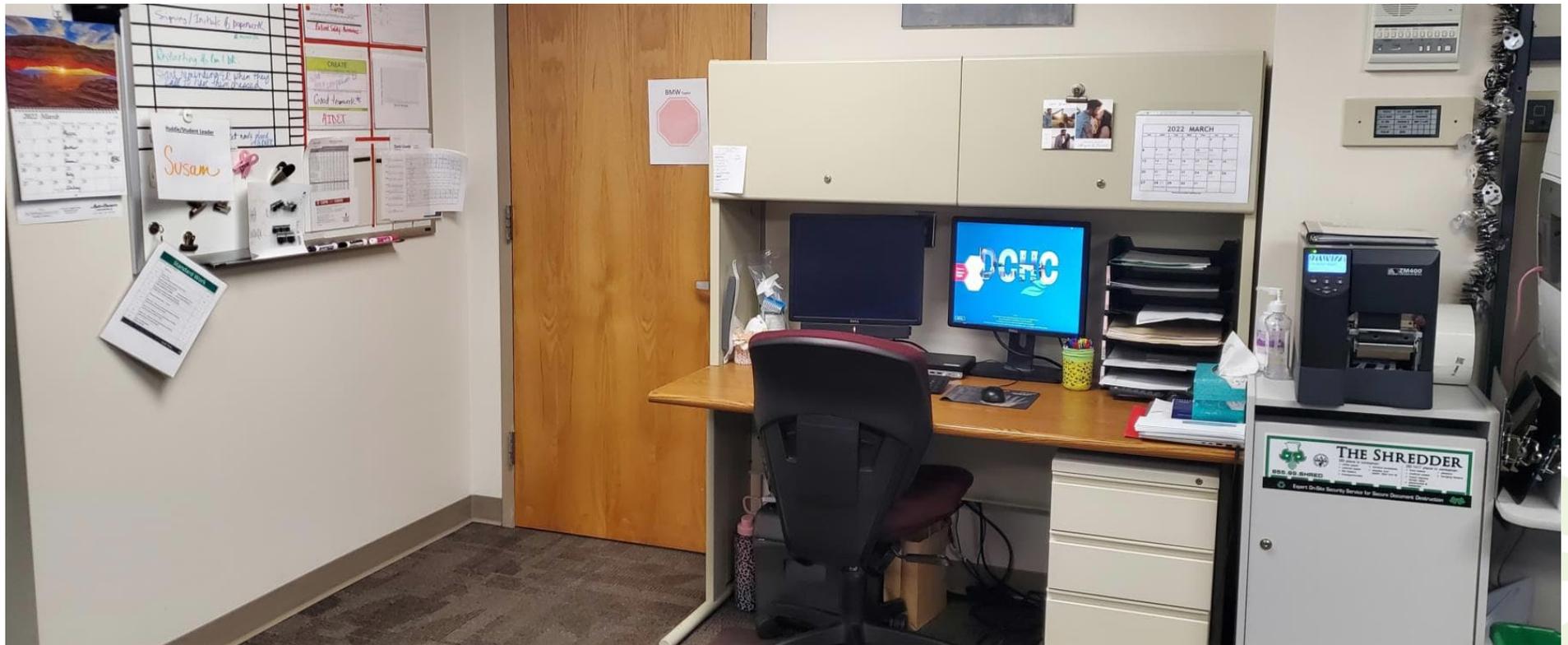


Radiologist Office

Post Renovation



Post Renovation



Post Renovation



Post Renovation



CT Lung Cancer Screening Program

Remains successful.....

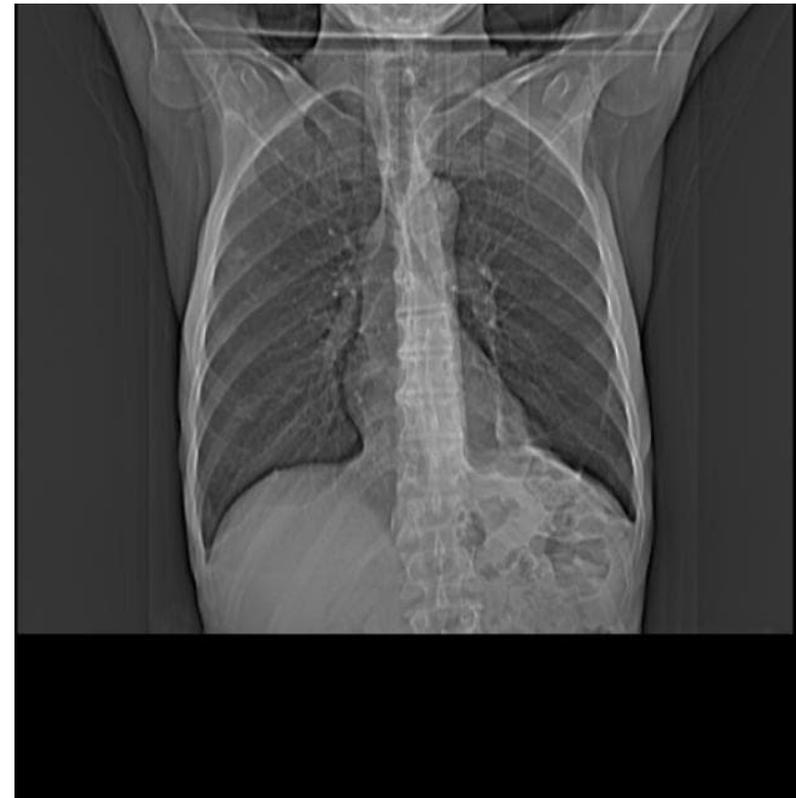
Since August 2018, We have had 256 patients in our screening program with 494 exams preformed.

CMS released expanded guidelines

January 2022

The final guideline states that for beneficiaries to be eligible for annual lung cancer screening with low-dose CT, they must meet the following criteria:

- Be between the ages of 50 and 77
- Be asymptomatic (no signs or symptoms of lung cancer)
- Have a tobacco smoking history of at least 20 pack years (One pack year is equal to smoking one pack per day for one year, with one pack equal to 20 cigarettes.)
- Be a current smoker or one who has quit smoking within the last 15 years
- Receive an order for lung cancer screening with LDCT



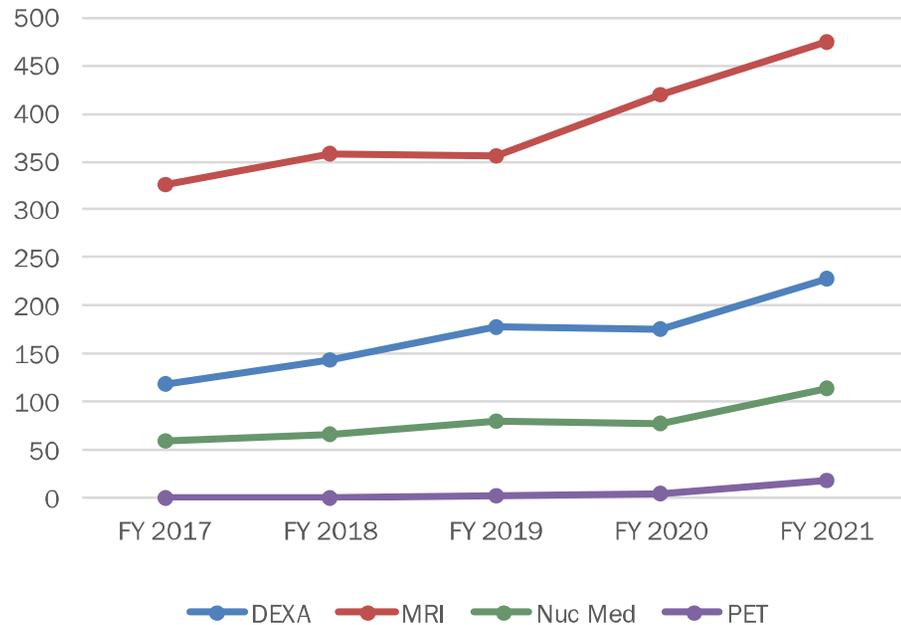
Power of the MercyOne Network

- Through this program, we continue to utilize our affiliate relationship with the Ottumwa MercyOne Clinics. It has not only allowed growth with our CT Lung Cancer screening program, but we have also seen growth in Mammography, MRI, and other CT procedures from these affiliate providers.



Exam Volumes 2017-2021

DEXA, MRI, Nuc Med and PET

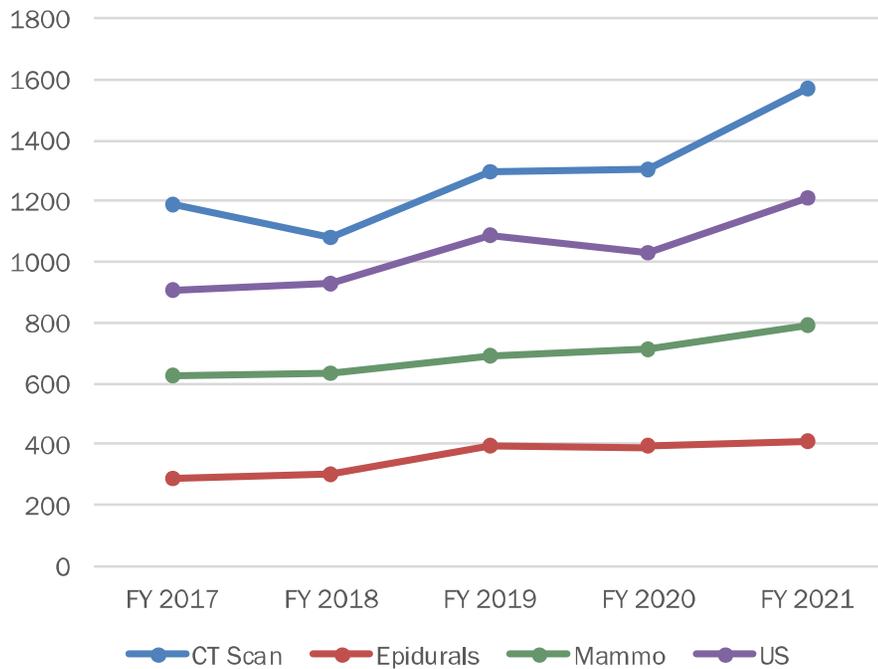


	DEXA	MRI	Nuc Med	PET
FY 2017	118	326	60	0
FY 2018	143	357	66	0
FY 2019	178	355	80	3
FY 2020	175	419	78	5
FY 2021	229	474	114	17



Exam Volumes 2017-2021

CT Scan, Epidurals, Mammo and US



	CT Scan	Epidurals	Mammo	US
FY 2017	1186	287	623	906
FY 2018	1078	302	633	927
FY 2019	1296	397	692	1089
FY 2020	1304	396	713	1028
FY 2021	1568	412	793	1208



Medical Imaging



THANK YOU FOR YOUR
TIME.



QUESTIONS?

