Springfield Hospital
Where People Come First

July 12, 2023

VIA ELECTRONIC DELIVERY

Donna Jerry
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Green Mountain Care Board
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RE: Request for Jurisdictional Determination, Springfield Hospital – MRI Equipment Upgrade

Dear Ms. Jerry,

This letter is to request Jurisdictional Determination for a proposed upgrade to Springfield Hospital's Magnetic Resonance Imaging department.

Our current Siemens Espree 1.5 T MRI camera and the modular building that the MRI is housed within are leased through an imaging company. The MRI was installed on May 10, 2016, and was a refurbished unit at that time. Its original installation date was in October of 2005. Contractually the imaging company pays for, and handles all issues and maintenance, but Springfield Hospital pays the consequences of not providing patient care when the unit is down. In the past year, we experienced greater than 20 days of unpredictable complete down time or required a service engineer to visit.

In addition, we are unable to complete certain imaging that is preferred by our Radiology group. The proposed brand-new scanner will provide several important applications that are not currently available. These applications include Resolve, Tricks, Dixon, and Perfusion. These sequences are repeatedly requested or required for routine protocols. They are in fact evidenced-based and the gold standard now for our Radiology group.

- Resolve sequence delivers sharper imaging at higher spatial resolution; it is desirable for the evaluation of smaller lesions and can be useful in differential diagnosis of benign versus malignant lesions in all anatomical regions. It also enables high resolution fiber tracking for neuroscience studies.
- Tricks sequence captures the full cycle of contrast injection in carotids, which means dynamic imaging during arterial, capillary, and venous phases is obtainable. You can acquire three-dimensional volumes during the passage of contrast and detect the vascularization of the region of interest over time.

- Dixon sequence's suppression of adipose tissue signal is more uniform and is less affected by artifact.
- Perfusion sequence allows for acquisition of serial T1-weighted images before, during, and after administration of contrast. The resulting signal intensity-time curve reflects a composite of tissue perfusion, vessel permeability, and extravascular-extracellular space which is beneficial for brain tumor studies.

The new equipment will provide a greater field of view (FOV) and improve our ability and flexibility on size protocols and greater image quality. An example is the ability to image the entire tibia and fibula simultaneously in one scan. Currently, this type of scan must be split into top and bottom, increasing scan time for each patient. By reducing scan time, our patient care throughput will correspondingly increase. The new scanner has larger body coils which will improve imaging options and images for our patients of size. Finally, the new scanner will provide WARP technique to identify and reduce metal artifacts. The new capabilities will reduce the number of patients from the Springfield area that are being referred out of the service area, often resulting in delays, inconvenience, and higher costs for our patients.

Upgrading to the proposed Siemens Sola 1.5 T will allow us to expand our imaging repertoire, including breast and prostate imaging. In 2021, providers at Springfield Hospital indicate that local providers sent a total of 152 patients to other facilities for MRI prostate imaging. Springfield Hospital's growing Urology clinic sent another 67 patients for MRI prostate imaging in 2022. These scenarios inconvenienced our patients and sent health care revenue out of our market area. With our current billable charge of $2,667 for each exam, prostate imaging would have produced an additional $405,384 and $178,689 billable, respectively. This would contribute to our sustainability as a facility and meet our Urologists' preference to refer their patients locally and enhance continuity of care.

We have collaborated and consulted with DHMC MRI Radiologist, who reviewed our project plans and desired camera technology. Radiologists at DHMC recognize the benefit to our community hospital by offering services that would otherwise be sent to DHMC. Our current situation burdens their already busy schedules as well as creating patient inconvenience and potentially dangerous delays in treatment. Our current volume can be seen below in Table 1.

Table 1:

Fiscal Year	2023*	2022	2021	2020	2019
Patient Volume	868	1302	1124	992	1124

*Year to Date through May; estimated actual 1302 for full year.

The project will require an additional monthly expenditure of **$2,499.32.** Our current lease and associated monthly expenses are $45,500.68 which include the camera, machine maintenance, and the building. With the new MRI, we anticipate a monthly expense of $48,000

per month. This includes the equipment upgrade over the course of 120 months in our new lease.

- This will be an operational expense funded by incremental revenue from additional patient volume.
- The total incremental expense over the course of the 120-month period would be **$299,918.40**.
- The cost for the necessary renovations required to the modular building will be completed and paid for by the imaging company.
- The project is approved by our Finance Committee.
- Our current MRI staff are experienced and competent in performing the additional imaging we will be able provide to our community.
- Our current base staffing will be able to manage the increase in volume in our current schedule.

Our Siemens Espree 1.5 T MRI unit is outdated and requires replacement in order to offer the highest standard of patient care to our local population. This proposed upgrade allows us to meet that standard by expanding testing capabilities which contributes to the improvement of patient care, convenience, and availability. Since this is an existing department within the organization and a project that does not exceed the guidelines, we believe a Certificate of Need is not required, but are respectfully seeking your guidance.

If you have any questions or require further information, please let me know. We thank you for your consideration.

Sincerely,

Robert Adcock