

Talking Points for Cardiac PET Petition

Good afternoon. My name is Dr. Ciccotto and I am a cardiologist with Asheville Cardiology and on staff at Mission Hospital. Thank you for allowing me to share some thoughts and comments about the proposed 2025 State Medical Facility Plan in relation to the PET/CT services chapter and need methodology.

As you heard from my colleague Brad Kappalman, Mission Hospital proposes that the PET need determination for HSA I in the DRAFT 2025 SMFP be limited to a cardiac PET program. I am here to tell you more about the clinical importance of cardiac PET to the region.

I am a cardiologist with additional training in cardiac PET imaging. PET has contributed immensely to the understanding of cardiac physiology and pathophysiology for more than 25 years. PET in fact demonstrates superiority to perfusion imaging, CT angiography (CTA), and MR angiography (MRA), according to a retrospective review of PET research studies over a 30-year period.

PET is gaining acceptance for cardiac applications focused on screening for cardiovascular disease among those who are symptomatic or who have associated risk factors such as family history or high cholesterol. Cardiac PET is useful for:

- Monitoring the condition of the heart and the success of treatment in those who have been previously diagnosed with CAD.
- Evaluating previously detected blockages and determining a patient's candidacy for coronary stents or bypass surgery.
- Determining the extent of tissue damage and scarring following a heart attack and identifying the most appropriate treatment method, and

- Increasing the effectiveness of testing in patients with a high body mass for whom other imaging modalities are not as efficacious.

In addition, while not as common as the aforementioned uses, cardiac PET imaging has emerged as an important tool to improve the diagnostic certainty and management of cardiac sarcoidosis. Sarcoidosis is an inflammatory disease that affects multiple organs in the body. Cardiac sarcoidosis or CS is a manifestation of systemic sarcoid disease that leads to significant morbidity and mortality. The prevalence of clinically evident cardiac involvement is approximately five percent, though this may be an underestimation given the difficulties of diagnosing CS. A positive endomyocardial biopsy can identify the histologic diagnosis of CS. However, this procedure carries risks and lacks sensitivity. Recently, PET imaging has gained acceptance as an excellent tool for early diagnosis, prognostication, and follow-up of patients with CS.

The use of PET for cardiac imaging is an evolving application for this technology with new clinical implications being rapidly developed by researchers. With the increasing support and recommendations, the modality is receiving, it will be used more often as an initial test to diagnose a variety of chronic heart conditions. This increase in demand will further increase the need for expansion of PET/CT capacity to meet the needs of service area patients.

This emergence of cardiac PET is not considered in the SMFP or the PET need determination, but it is critical to note again that western North Carolina is the only region in the state without a cardiac PET program and the patients in need of this service are most time the sickest in the region who should be transferred to the closest tertiary care center.

Background on Mission's Cardiac Services

Mission has been a regional leader in cardiac and cardiothoracic surgical care for over 50 years, offering comprehensive cardiac services and consistently achieving the best cardiac outcomes in the region. Mission has two cardiologists that are specifically trained in cardiac PET imaging along with three who specialize in cardiac MRI and eight who specialize in cardiac CT. Given this extensive expertise, Mission is uniquely qualified to provide insight regarding the cardiac diagnostic needs of Health Service Area I. In 2023, Mission provided:

- 27,095 adult Echocardiograms
- 2,779 stress echocardiograms/treadmill tests
- 2,348 cardiac CT scans
- 1,201 cardiac MRI scans
- 3,469 pediatric cardiac imaging studies

It is this large and growing base of patients that will benefit from a dedicated cardiac PET program. **In 2023, Mission Hospital projected that it would perform over 1,000 cardiac PET scans by the third year of operation of a new PET unit.** This level of volume is certainly too much volume to add to an already highly utilized PET unit.

Currently, no existing facilities in the Health Service Area I offer cardiac PET services. Mission Hospital is capable of providing cardiac PET services. We have the clinical expertise and a large enough cardiac patient base in western North Carolina to support a cardiac PET program. Unfortunately, the high demand for oncology is limiting Mission Hospital's ability to expand its PET services to include cardiac services.

Currently, Mission Hospital is the second largest provider of cardiovascular surgery in the State and the only provider among the top 5 largest cardiovascular surgery center that does not have a cardiac PET program. All of the other Top 5 centers operate two or more PET units.

To meet the demand for specific cardiac PET services, a dedicated cardiac PET scanner is essential. It will provide unique diagnostic capabilities that are currently unavailable in the region, ensuring residents have access to essential cardiac diagnostics. Adding another general oncology focused PET unit in HSA I will not meet this need.

There are several reasons for this petition, including:

1. The service area's existing and approved PET scanner are used to meet the demand for oncology PET services.
2. Heart Disease has recently replaced Cancer as the leading cause of death in North Carolina and Health Service Area I, indicating the growing unmet demand for Cardiac PET Services.
3. PET imaging is valuable for assessing heart perfusion, effect on heart attacks, and normal heart functions. Furthermore, PET cardiac imaging is superior to other imaging methods like perfusion imaging, CTA, and MRA.
4. PET imaging can screen for cardiovascular disease, monitor coronary artery disease, evaluate blockages, assess tissue damage and scarring post-heart attack damage, and diagnose cardiac sarcoidosis.
5. As PET technology advances for cardiac imaging, its use in diagnosing and managing chronic heart conditions will likely increase, and thus, the demand for such services will continue to grow.

Thank you for considering these points. We strongly believe that including a dedicated cardiac PET scanner in the 2025 SMFP for HSA I is crucial for meeting our community's growing healthcare needs. As PET becomes a standard of care for diagnosing cardiac conditions, a cardiac PET service will ensure timely, accurate diagnoses and improve the overall quality of care for patients with heart disease in our region. Your support in this matter will make a significant difference in the lives of many. Thank you for your time and attention.