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Public Hearing for the 2016 State Medical Facilities Plan
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Good morning,

I am Michael MULLowney, Vice President with Carolinas HealthCare System and service line leader for CHS Neurosciences Institute. Carolinas HealthCare System (CHS) respectfully petitions the State Health Coordinating Council to create a special allocation for one dedicated intraoperative magnetic resonance imaging (iMRI) unit in the western portion of the state – specifically, Health Service Areas I, II, and III - in the *2016 State Medical Facilities Plan (2016 SMFP)*. To be clear, the dedicated iMRI unit would

be located in or adjacent to an operating room and would not be used for conventional MRI procedures on patients not undergoing surgery. The Petition that we file today will explain much of the rationale for our request. Carolinas HealthCare System believes the proposed special allocation for one dedicated iMRI unit in the western portion of the state will provide the citizens of North Carolina with significant benefits in terms of *safety/quality, access, and value* and urges the SHCC to approve this petition. We would like to take the opportunity this morning to expand upon the clinical reasons for the petition. At this point, I want to introduce Dr. Tony Asher, Co-Medical Director of CHS Neurosciences Institute and Neurosurgeon with Carolina Neurosurgery & Spine Associates. Dr. Asher

Thanks Mike. Good morning. I'm Dr. Tony Asher and I'm a neurosurgeon with the Carolina Neurosurgery & Spine Associates. As Mike mentioned I am Co-Medical Director, Carolinas Healthcare System Neuroscience Institute. I am also Director of the Adult Brain Tumor Program at Levine Cancer Institute and I serve as Neurological Surgery Residency Program Director at Carolinas Medical Center. I am a Clinical Professor in Neurosurgery at the University of North Carolina and I'm a Director of the American Board of Neurological Surgery.

Relevant to this presentation, I hold a number of national positions related to healthcare quality and safety including Director, National Neurosurgery Quality and Outcomes Database, Co-Chairman, National Task Force on Quality Initiatives in

Neurosurgery, and Chairman, of the Research Task Force of the AMA National Quality Registry Network Council. I am a member of the National Quality Forum Surgery Standing Committee and I serve as an advisor to the HHS Secretary's Advisory Committee on Human Research Protections.

With that background, I'd like to take just a moment to explain the clinical reasons for the petition.

The technology used in iMRI allows a patient to receive an MRI scan during a surgical procedure. Specifically, it allows for a high quality MRI to be obtained while a patient is under anesthesia, with an open body cavity or skull. It is specially designed for, and typically used in, neurosurgery procedures. Before I describe the typical application of iMRI, I

should mention parenthetically that the use of iMRI in other organ systems is rapidly expanding (and we can perhaps discuss these applications in the question period).

The primary use of this technology to date has been in the removal of adult and pediatric tumors from the human central nervous system (which is to say, the brain, the spinal cord and associated structures such as the spinal column or skull). Surgeons using iMRI perform scans during surgery to ensure complete removal of the tumor before the surgical opening is closed. It's important to note (and perhaps not intuitive) that extent of tumor removal in the CNS is not always apparent at surgery, even when surgical adjuncts such as microscopes are used.

In the absence of iMRI, patients have surgery and then, after the surgery is complete, they usually undergo a traditional MRI scan to confirm that the surgery was successful (which is to say, that a good tumor removal was accomplished, and that other abnormalities such as blood clots are not present). If the surgery has not been effective and another surgical attempt is warranted, either to remove more tumor or address complications, the surgeon must schedule a second surgery for the patient. That means the patient must undergo a second procedure, including prep, anesthesia and reopening of the surgical site. Sometimes the second surgery does not occur until after the patient has been discharged, requiring a readmission. While this paradigm is far from ideal, it is presently the only choice for a corrective surgery in these situations. For children

with life-threatening disease, the challenges of a second surgery are difficult for both the patient and his or her caregivers. For all patients, a second surgery adds unnecessary healthcare costs, increased length of stay, and additional risks that could be improved through the use of iMRI in the surgical suite. CHS estimates that a second surgery costs payors, on average, \$33,000 per patient. We believe that iMRI could assist surgeons in avoiding these second surgeries and in the process save millions of dollars of costs to the healthcare system.

Equally important to resource considerations are the clinical benefits of this technology. Studies show that iMRI allows for improved accuracy of resections. As extent of resection is known to correlate with important metrics such as survival, iMRI promises to

improve the outcomes of patients with central nervous system and other cancers. iMRI use has also been associated with decreased surgical morbidity and a reduction of repeat surgeries for adult and pediatric patients. As a result, iMRI is widely expected to become a standard of care for quaternary hospitals in five years.

Please note these iMRI units are typically located in or adjacent to an operating room. In that regard, they are distinct, from a state planning standpoint, from traditional diagnostic MRIs.

Currently, there is one only iMRI in North Carolina, at Duke University Hospital. North Carolina lags behind nearby states in terms of access to iMRI technology and we believe there is more than

sufficient need to provide greater geographic access to these services. Duke's iMRI unit will continue to provide access patients in the eastern portion of the state. We believe that this special allocation is the most effective way to ensure that the western portion of the state receives adequate access to this service. The Carolinas Healthcare System and CNSA support the predominant neurosurgical needs in the Western portion of the state.

I am happy to respond to any questions you may have about the clinical need for this technology.

Thank you.