Spinal Oncology/Spinal Emergency Pathway

University Seidman Cancer Center has an outstanding multidisciplinary spinal oncology service consisting of radiation oncology, neurosurgery, orthopedics and neuro-oncology. Currently, referrals from within the UH main campus are through medical oncology, orthopedics and neurosurgery and those from UH community centers/affiliated centers and from outside the UH system are through personal contacts or routine consultation. Patient who have been referred to our service have usually benefited tremendously from our care. However, there has not been a standardized “pathway” and pattern of communication between departments. Also, there are differences in skillset of surgeons involved with lack of training in Stereotactic Radiosurgery (SRS) in some providers which may have impeded consideration of this treatment option. Finally, use of the multi-disciplinary Brain & Spine Tumor Board has been inconsistent particularly with regard to spinal oncology.

These issues have led to delays in diagnosis and patient care, and in some cases, confusion about which service is managing these patients.

Review of best practices at centers considered leaders of spinal oncology including MD Anderson Cancer Center, Sloan-Kettering Memorial Cancer Center & Johns Hopkins Cancer Center, as well as local institutions such as OSU and CCF reveal that these institutions have a well defined pathway for patients with spine oncologic issues.

The purpose of this document is to institute such a Multi-Disciplinary Spinal Oncology Program at SCC.

Components:

I. Participating Clinicians: Medical Oncology: All practitioners but focus on those dealing with myeloma, prostate, renal, lung, breast
   A. Neuro-Oncology: (focus on Adult) *
   B. Radiology: Those reading CT or MRI of Spine
   C. Radiation Oncology: Those trained on CK or other Linac Devices **
   D. Surgeons with cross training in spinal surgery and radiosurgery and willingness to participate in Spinal Oncology Call Schedule & Spine Tumor Board ***:  
      1. Neurosurgeons
      2. Orthopedic Surgeons
   E. Medical Oncology (The Med Onc managing pt is desirable; med onc on call acceptable for the managing oncologist is not available).

II. Pathways

Since the diagnosis of newly developed or progressive spinal metastasis is usually made with the use of diagnostic imaging such as MRI, bone scan, CT or PET, it is logical to identify this patient group through the neuro-radiology service. These pathways are created to identify patients with newly diagnosed or progressive spinal metastases who may benefit from surgical treatment, radiosurgical treatment or radiotherapy. When such patients are identified, the

* Participation requires regular participation in weekly meetings Brain & Spine Oncology Tumor Board (UH B-151) as of July 3, 2013
# Participation requires certification in Spinal Radiosurgery as of Jan 1, 2014
radiologist will contact the referring physician as well as activate the Spinal Oncology Call (SOC) Team pager which will be held by the Radiation Oncologist, and the Spine Surgeon. These three physicians are expected to review the case and reach a consensus recommendation for therapeutic intervention within 2 hrs. Furthermore, it is expected that when cord compression is diagnosed and managed surgically, surgery is instituted within 24 hrs. Specifics are outlined below:

A). Weekdays 8 am-5 pm:

Step 1: Inform ordering physician (Please note that the ordering physician must be informed under any circumstances).

Step 2: Contact Transfer Referral Center (216 844-1111) to activate Spinal Oncology (SOC)/Spinal Emergency Team pager comprised of Surgeon, Dr. Simon Lo, Department of Radiation Oncology, and the Medical Oncologist (managing vs “on call”)

Step 3: Management of SOC pager by Transfer Center: If no reply from SOC Radiation Oncologist and/or Surgeon within 15 minutes, repeat and call the physicians’ offices; after 30 min, contact person on-call for missing member’ Department (Neurosurgery, Orthopedics, or Radiation Oncology). If there is evidence of spinal cord compression, the on-call Spinal Oncology Surgeon or On-Call Service must be contacted since emergent surgery may be required. If Dr. Lo is not available, contact triage radiation oncologist, who if not credentialed for stereotactic Radiosurgery will later discuss with Dr. Lo or another radiation oncologist credentialed for Stereotactic Radiosurgery where appropriate. If there is evidence of spinal cord compression, the triage radiation oncology service must be contacted since emergent radiotherapy may be needed if patient is not a surgical candidate.

Step 4: SOC Surgeon and Radiation Oncologist will review the films, and together with Medical Oncology, discuss possible presence of cord compression, LMD and role for surgery and radiation involving Medical Oncology and decide on treatment options. This will be relayed to patient in multi-disciplinary fashion.

Step 5: Many patients will need urgent or emergent intervention before next scheduled tumor board. However, all patients, whether pre- or post-op will be presented for discussion at proximate Multidisciplinary Brain & Spine Tumor Board.

B). Nights (5pm-8AM) and Weekends:

Step 1: Inform ordering physician (Please note that the ordering physician must be informed under any circumstances).

Step 2: Contact Transfer Referral Center (216 844-1111) to activate Spinal Oncology (SOC)/Spinal Emergency Team pager comprised of Surgeon as well as Dr. Simon Lo, Department of Radiation Oncology, and Medical Oncology (managing physician vs “on call”).

Step 3: Management of SOC pager by Transfer Center: Activate SOC Team pager to contact surgeon, radiation oncologist and Medical Oncologist. If no reply within 15 minutes, repeat and call the office of the physician on call. If there is evidence of spinal cord compression, the on-call SOC Surgeon On-Call must be contacted since emergent surgery may be required.
**Step 4:** SOC Surgeon, Radiation Oncologist, and Medical Oncologist will review the films, discuss presence of LMD and role for surgery and radiation involving medical oncology and/or Neuro-Oncology as appropriate and decide on treatment options. This will be relayed to patient in multi-disciplinary fashion.

**Step 5:** Many patients will need urgent or emergent intervention before next scheduled tumor board. However, all patients, whether pre- or post-op will be presented for discussion at Multidisciplinary Brain & Spine Tumor Board.

**III. Multidisciplinary Brain & Spine Tumor Board**

Given the complexity & multidisciplinary nature of cancer treatment, and the importance of offering wide and open access to clinical trials, SCC adheres to best practices of reporting all newly diagnosed and recurrent spinal neoplasms at weekly Brain & Spine Tumor Board. This meets every Wednesday (except for holidays and cancellations) 9-10:15 at UH-CMC in B-151 (Basement of UH near hallways to Bowell & SCC). Attendance via videoconference can also be arranged in advance by e-mailing tumorboard@uhhospitals.org

Attendance in person or by teleconference by physicians or their representatives is particularly desirable at conferences in which one’s cases are being presented. In the event a physician or his representative can not attend a particular meeting, the managing physician(s) may request that the presentation be postponed until the next tumor board but delays of more than one week are discouraged.

All new specimens of brain and spine neoplasms are routinely presented at the meeting after the permanent diagnosis has been determined. In the event a participating physician wishes to add a case to be presented at tumor board, please email tumorboard@uhhospitals.org by Monday at noon for presentation of a case the following Wednesday.