Interdisciplinary Care of Patients with Neurologically Involved Cancer

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FACTS ABOUT BRAIN TUMORS IN THE UNITED STATES

An estimated **688,000+ PEOPLE** in the U.S. are living with a primary brain or central nervous system (CNS) tumor diagnosis:

**138,000 WITH MALIGNANT TUMORS**

**550,000 WITH BENIGN TUMORS**

Approximately **20-40%** of all other cancers later develop a brain metastases.

**63%** benign tumors (41,980 cases)

**37%** malignant tumors (24,300 cases)

This accounts for 95,000 to 170,000 new metastatic brain tumor cases each year.

**IN 2012, NEW PRIMARY BRAIN TUMOR DIAGNOSES INCLUDED:**

- **16%** Glioblastoma
- **7%** Astrocytoma
- **35%** Meningioma
- **14%** Pituitary
- **9%** Nerve Sheath
- **2%** Lymphoma
- **33%** Other (Ependymoma, Oligodendroglioma, Embryonal, etc.)

Purpose of the Interdisciplinary Cancer Care Committee

- History of committee formation
- Interdisciplinary committee members
- Debriefing of cases
- Discuss trends of database
- Patient Care Conference checklist
- Staff education and in-services
- Enhance staff emotional well-being

Pathway for Inpatients with Brain Tumors
Interdisciplinary Roles in Serving the Population with Brain Tumors/Cancer

- Therapy
  - Physical Therapy
  - Occupational Therapy
  - Speech-Language Pathology
  - Creative Arts Therapy/Adjunctive Therapy
- Psychology
- Case Management
- Physicians
- Nurses
- Clinical Nutrition
- Pharmacy
Roles of Inpatient Rehab for the Population Served with Brain Tumors/Cancer

• Restoring as much independence as possible
• Quality of Life
• Family training
• Provide equipment for home
• Maximize fitness
• Education on safe guidelines for exercise
• Monitoring for disease progression/side effects
• Support for caregivers
Challenges in Serving Individuals with Brain Tumors/Cancer

- Discharge equipment
  - Case Study AA
- Oncology management
  - Case Study DD
- Therapy goals
  - Case Study JF
CASE STUDY: Discharge Equipment

- AA was a 75-year-old male with a left frontal GBM (glioblastoma)
- Highly fluctuating functional presentation based on confusion and endurance, in addition to strength deficits
- He required a tilt-in-space manual wheelchair for safe mobility, skin protection, and comfort
- Had to discharge to SNF to receive the chemotherapy and radiation he needed
- SNFs typically don’t have tilt-in-space wheelchairs and we couldn’t order him one since he was going to another facility
CASE STUDY: Oncology Management

• DD is a 56-year-old man with a GBM in left occipital/parietal lobe
• Significantly impaired cognition, mild right hemiplegia, orthostatic hypotension, irritability
• Adjustments in length of stay
• Discharged early to home due to need to start radiation immediately
CASE STUDY: Therapy Goals

- JF was a 68-year-old female with a left basal ganglia anaplastic astrocytoma
- She was independent prior to onset of brain tumor
- Family had high expectations of patient returning to pre-morbid baseline by discharge from Magee
- Not only did patient not progress to independence, but she began to decline in her functional mobility towards the end of her stay
- Goals had to be adjusted to accommodate her decline
Challenges in Serving Individuals with Brain Tumors/Cancer

• Culture change
• Difficulty gauging patient and family understanding of prognosis
• Patient and family needs for emotional support
• End of life issues (see Case Study)
• Emotional toll on staff
CASE STUDY: Challenges
Challenges (continued)

• Accessing palliative and hospice care
• Placement issues for individuals who are receiving treatment post acute rehab
• Overall disposition issues (home vs. SNF)
• Managing side effects of current and new oncology treatment
Interventions for Improving the Care of Persons Served With Brain Tumors/Cancer

• Adapting schedules to accommodate patient fatigue and tolerance
  Example

• Patient Care Conference checklist
  Example
Example of Patient’s Schedule
Interventions for Improving the Care of Persons Served With Brain Tumors/Cancer

• Adapting schedules to accommodate patient fatigue and tolerance
  • Example

• Patient Care Conference checklist
  • Example
Patient Care Conference Checklist

Patient Care Conference Checklist-Brain Tumor Clinical Pathway

Medical/Nursing
- What is date of follow-up neurosurgical visit?
  - Will physician or other attend/f/u visit with patient and family?
- What is plan for chemo/radiation?
- Will patient need any specialized meds? Consult pharmacy.
- Has physician discussed follow-up care with patient/family?

Psychology
- Discuss patient/family readiness for discussion of potentially life-limiting nature of brain tumor.
  - Discuss post-neurosurgical visit meeting with team.
- Does patient have capacity to make decisions? Has discussion occurred about POA, advanced directive?

Therapy
- Has Rec Therapy/Art Therapy been consulted re: quality of life/survivorship programs?
- What equipment will the patient need? Reminder: Begin process early!
- Does family have home accessibility form?
- Can patient tolerate 3 hrs/day of therapy? Consider 7-day schedule.
- If short stay is weekend therapy appropriate?

Case Management
- Was family provided with Cancer Care binder?
  - Was education provided on hospice/palliative care?
  - Was education provided on ABTA supports?
- Is a family meeting appropriate?
- Has transportation application been initiated?
- Has hospice/palliative care been discussed with family? Consult hospice/palliative agency.
  - If patient/family chooses hospice-has team spoken with hospice agency about equipment?
Interventions for Improving the Care of Persons Served With Brain Tumors/Cancer

- Interdisciplinary team liaising with oncology team
- Family meeting
- Family education and training
- Palliative care and hospice education
Interventions (continued)

- Optimize pain management
- Prioritizing psychological support
- Post-discharge care resources/support systems
- Creation of outcome survey
  - To gauge patient and family understanding/acceptance of diagnosis
Feedback from Family

- Committee members met with daughter and wife of former person served who had a glioblastoma
- We explained the purpose of our committee and invited them to share their experience so that we can better serve patients and families being treated for brain tumors
- Family shared a timeline of events, starting with first symptoms until after patient passed away
Discharge Preparation for Persons Served with Brain Tumors/Cancer

- Timing of appointments/treatment
- Transportation
- Continued therapies (outpatient vs. homecare services)
- Social security/disability/compassionate allowances
- Planning for possible decline
- Hospice and palliative care
CASE STUDY: J.S.
J.S. Case Study: Diagnosis & Background

- 36 y/o male, married with a newborn, premorbidly independent and working full time
- Head CT revealed recurrent R frontal astrocytoma with malignancy generation
- Image guided craniotomy was complicated by postoperative hematoma and IVH requiring a R frontal craniotomy followed by R decompressive hemicraniectomy
- Hospital course complicated by hypernatremia (resolved), steroid induced hyperglycemia and fever
- Diet advanced at acute hospital from NPO w/ DHT to soft solids and thin liquids
J.S. Case Study: Functional Status at Admission

- Physical $\rightarrow$ (D) for bed mobility, MAX A x 2 for squat pivot transfer and sit to stand to parallel bar
- Swallowing $\rightarrow$ diet: soft solids, thin liquids; swallowing confounded by attention/cognition
- Cognition/language $\rightarrow$ 1:1A, severe-profound cognitive-communication impairment (attention, memory, problem solving, safety, visuospatial skills, insight)
J.S. Case Study: Nursing, PT, & OT

- Nursing
- Physical Therapy
- Occupational Therapy
- Speech Therapy
- Neuropsychology
J.S. Case Study: Art Therapy

• Goals
  • Offering opportunities for choice and control through selection of art materials and subject matter of artwork
  • Non-verbal self expression of thoughts and feelings
  • Cognitive stimulation
  • Potential to create legacy artwork for family
J.S. Case Study: Case Management & Discharge

- Emotional support for family/patient
- Identified family/patient goals
- Weekly updates
- Options for discharge post Magee
- Home vs. placement
- Barriers impacting discharge to home
- Palliative Care/Hospice Options
- Had a family meeting with rehab team toward end of stay at MRH
- Emergently discharged to acute hospital prior to planned d/c date
- Went to inpatient hospice facility immediately after acute hospital and died soon after
CASE STUDY: F.B.

• F.B. was a 63-year-old woman with a history of endometrial cancer who presented to Magee for rehab after resection of left parietal brain metastases
• She had very low functional status and very poor endurance for therapies
• High anxiety and very emotional during rehab stay
• Had first send-out to the acute care setting due to pulmonary embolism
• 2nd send-out due to headache and found new area of intracranial bleeding
• Discharged home from acute care on hospice and died a few months later
Interdisciplinary Cancer Care Committee
Resources

- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5556633/
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5736373/
- https://scholarlyworks.lvhn.org/cgi/viewcontent.cgi?article=1507&context=patient-care-services-nursing
Abington Hospital | Abington - Lansdale Hospital | Jefferson Bucks Hospital | Jefferson Cherry Hill Hospital
Jefferson Frankford Hospital | Jefferson Hospital for Neuroscience | Jefferson Stratford Hospital
Jefferson Torresdale Hospital | Jefferson Washington Township Hospital | Magee Rehabilitation Hospital
Methodist Hospital | Physicians Care Surgical Hospital | Rothman Orthopaedic Specialty Hospital
Thomas Jefferson University Hospital

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