

#### Newly Diagnosed Solid Tumors (Diagnostic Management) Care Process Model Synopsis



For additional information, link to synopsis
This care process model/clinical practice guideline is meant as a guide for the healthcare provider, does not establish a standard of care, and is not a substitute for medical judgment
which should be applied based upon the individual circumstances and clinical condition of the patient.

#### Children's Mercy **Evidence Based Practice KANSAS CITY**

tissue planes

#### Date Finalized: 11.2022 2

Children's Mercy **Newly Diagnosed Solid Tumors CPM** Extremity **KANSAS CITY** Tumor in an Extremity Lab Work-Up . Imaging Biopsy Pathology MRI to include the entire bone CBC with diff Soft Tissue in Bone Origin and joint above and below. BMP Origin with and without contrast LETs CT chest with contrast PT/PTT/fibrinogen (Unless very clearly a sarcoma, Oncology team places Research Pathology • LDH defer staging until after biopsy) Needle biopsy by IR Pathology Tissue • ESR/CRP or Request" order with ¥ · If the lesion is relatively pertinent information in Minimum 1 gram superficial, not abutting "Details" section frozen tissue Repeat labs as structures of critical ls mass in pelvis significance, and is clinically indicated or located around nerves/vessels smaller (< 5cm), can be a candidate for Anatomic excisional biopsy. Pathology Consult Hematology/Oncology Email Solid Tumor Group for timing Core needle biopsy with and setting of biopsy plan: image guidance by IR to HONewSolidTumor@cmh.edu avoid contamination of the Pathology will triage

#### **Biopsy General Considerations** Consult sarcoma surgeon to discuss biopsy approach

If requested, consult IR to see if mass is amenable to biopsy

- IR and surgery should discuss the biopsy tracks beforehand
- If tumor is cystic or there is a concern about getting enough tissue, consider surgical biopsy

Molecular and genetic testing on bone marrow specimens must be

ordered by Oncology

Contact: EvidenceBasedPractice @cmh.edu

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No

Discuss IR vs surgical

biopsy with orthopedic

oncology surgeon

tissue/specimer

sample & will order

appropriate ancillary

testing (Ex: Genetic

testing)

Tissue source Surgical or IR?

Surgica

3 by 3 by 1.5 cm biopsy

for clinical diagnosis

purposes

Last Updated: 10.5.22

Sufficient quantity to be

determined by pathology

and IR

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### **Evidence Based Practice**

**Children's Mercy Newly Diagnosed Solid Tumors CPM Evidence Based Practice** Renal **KANSAS CITY** Consult Hematology/Oncology Tumor in Renal Email Solid Tumor Group for timing and setting of biopsy plan: HONewSolidTumor@cmh.edu Biopsy Method Lab Work-Up Imaging Pathology CT chest/abdomen/pelvis with Consult Surgery CBC with diff contrast If indeterminate cystic renal lesions, • BMP · CT chest/abdomen/pelvis with LFTs and without contrast OR Oncology team places Research PT/PTT/fibrinogen MR abdomen/pelvis without and Involvemen "Pathology Tissue Pathology Urinalysis with contrast and a CT chest with Request" order with contrast pertinent information in If concern for urinary leak, mention "Details" section in "Comments" section of the order Renal Cell Minimum 1 gram Unilateral Wilms Repeat labs as Bilateral • Ex: "Clinical concern for urinary frozen tissue (Presumed) Carcinoma clinically indicated leak. Please obtain delayed renal (Presumed) phase." Anatomic Pathology Biopsy contraindicated, Consult surgery Criteria for a renal tumor proceed with Contraindications for If vascular involvement for next steps that should NOT be chemotherapy tumor resection unclear consider Molecular and resected or biopsied at Pathology will triage ultrasound with genetic testing on diagnosis: tissue/specimen sample Doppler bone marrow Yes If Renal Cell Unilateral tumor with: & will order appropriate No specimens must Carcinoma is Any single contralateral ancillary testing (Ex: be ordered by lesion if <1 year of age confirmed Genetic testing) Radical nephrectomy If concern for arterial occlusion Oncology Single contralateral definitive surger with >/= 5 lymph node CT angiography with arterial lesion ≥ 1 cm (>1 year of requires sampling preferred phase imaging may be age) retroperitoneal indicated in addition to the Multiple contralateral lymph node Tissue Source noncontrast and venous Biopsy method to be lesions dissection Surgical or IR? • Known Wilms tumor determined by phases Resectable? predisposition syndrome Urology/Surgery Hemihypertrophy If concern for urinary leak, Aniridia -Surgical mention in "Comments" Genitourinary section of the order abnormalities associated Proceed with with bilateral tumors Surgical biopsy 3 by 3 by 1.5 cm biopsy Sufficient quantity to Ex: "Clinical concern for Nephrectomy (e.g. cryptorchidism, for clinical diagnosis be determined by urinary leak. Please obtain hypospadias) purposes pathology and IR delayed renal phase. Contact: EvidenceBasedPractice @cmh.edu Last Updated: 10.5.22 For additional information, link to synopsis

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Newly Diagnosed Solid Tumors CPM Abdominal Not Otherwise Specified

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### **Evidence Based Practice**

Newly Diagnosed Solid Tumors CPM Testicular

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## Evidence Based Practice

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#### **Objective of Care Process Model**

The objective for the Diagnostic Management of Newly Diagnosed Solid Tumors Care Process Model is to provide care standards for the patient who presents with a suspected malignant or newly diagnosed solid tumor in any of the following locations: extremity, renal, suprarenal, liver, retroperitoneal, abdominal (not otherwise specified), thoracic, ovarian/uterine, and testicular.

#### Background

Diagnostic management is paramount for a child or adolescent presenting with a suspected malignant or newly diagnosed solid tumor. The creation of the care process model is meant as a guide for the healthcare professional to standardize the diagnostic management of newly diagnosed solid tumors through a care management process. The Diagnostic Management of Newly Diagnosed Solid Tumors Care Process Model is not a substitute for medical judgment, which should be applied based upon the individual circumstances and clinical condition of the patient.

#### **Target Users**

- Hematology/Oncology staff, fellows, residents, and APRNs,
- Surgery staff, fellows, residents, and APRNs,
- Urology staff, fellows, residents, and APRNs,
- Gynecology staff, fellows, residents, and APRNs,

#### **Target Population**

#### **CPM Inclusion Criteria**

• Patients with suspected malignant or newly diagnosed solid tumor in an extremity, renal, suprarenal, liver, retroperitoneal, abdominal (not otherwise specified), thoracic, ovarian/uterine, and testicular locations.

#### **CPM Exclusion Criteria**

• Patients with suspected anterior mediastinal mass

#### **Care Management Recommendations**

• Recommendations are based on the child or adolescent who presents with a suspected malignant or newly diagnosed solid tumor in an extremity, renal, suprarenal, liver, retroperitoneal, abdominal (not otherwise specified), thoracic, ovarian/uterine, and testicular locations. Each location has a corresponding workup pathway that involves: Labs, Imaging, Biopsy/Surgery, and Pathology.

#### Additional Questions Posed by the CPM Committee

No clinical questions were posed for this review

#### **Potential Cost Implications**

The following potential improvements may reduce costs and resource utilization for healthcare facilities and reduce healthcare costs and non-monetary costs (e.g., missed school/work, loss of wages, stress) for patients and families.

- Decreased risk of overdiagnosis
- Decreased risk of overtreatment (i.e., treatment for meningitis when treatment for urinary tract infection is more appropriate)
- Decreased frequency of admission
- Decreased inpatient length of stay
- Decreased unwarranted variation in care

#### Potential Organizational Barriers and Facilitators Potential Barriers

- Lack of awareness of CPM
- Overnight admissions
- Urgent/emergent patients
- Lack of cross-discipline communication prior to decisions



#### **Potential Facilitators**

- New solid tumor power plan
- New solid tumor email group for communication
- Active encouragement of error prevention (STAR, ARCC, QVV) before pivotal decisions/orders

#### **Associated Policies**

• None

#### **Care Process Preparation**

This care process was prepared by the Evidence Based Practice Department (EBP) in collaboration with content experts at Children's Mercy Kansas City. Development of this care process supports the Division of Quality Excellence and Safety's initiative to promote care standardization that is evidenced by measured outcomes. If a conflict of interest is identified the conflict will be disclosed next to the committee member's name.

#### **Implementation & Follow-Up**

Once approved, the CPM was presented to appropriate care teams and implemented. Care measurements will be assessed and shared with appropriate care teams to determine if changes need to occur. This CPM is scheduled for revision November 2024.

#### Diagnostic Management of Newly Diagnosed Solid Tumors CPM Committee Members and Representation

- Joel Thompson, MD | Hematology/Oncology/BMT | Committee Chair
- Bhargava Mullapudi, MD | Transplant Surgery | Committee Member
- Kris Laurence, BHS, CCRP | Hematology/Oncology/BMT | Committee Member
- Lindsey Fricke, RN, MSN, FNP-BC, CPHON | Hematology/Oncology/BMT | Committee Member
- Brenton Reading, MD | Radiology | Committee Member
- John Krumme, MD | Orthopaedic Surgery | Committee Member
- Melissa A. H. Gener, MD, FCAP | Pathology and Laboratory Medicine | Committee Member
- Eugenio Taboada, MD, FCAP | Pathology and Laboratory Medicine | Committee Member
- Ashli Lawson, MD | Gynecology | Committee Member
- Joel Koenig, MD | Urology | Committee Member

#### **EBP Committee Members**

- Todd Glenski, MD, MSHA, FASA | Anesthesiology, Evidence Based Practice | Committee Member
- Jarrod Dusin, MS, RD, LD, CPHQ | Evidence Based Practice | Committee Member

#### **Additional Review & Feedback**

 The CPM was presented to each division or department represented on the CPM committee as well as other appropriate stakeholders. Feedback was incorporated into the final product.

#### **Care Process Model Development Funding**

If no outside funding, use this statement: The development of this guideline was underwritten by the EBP and Hematology/Oncology/BMT, Surgery, Radiology Departments.

#### **Approval Obtained**

Department/Unit	Date Approved	
Hematology/Oncology/BMT	October, 2022	
Pathology and Laboratory Medicine	September, 2022	
Radiology	October, 2022	
Pediatric Surgery	October, 2022	
Orthopaedic Surgery	September, 2022	
Pathology and Laboratory Medicine	September, 2022	



Gynecology	September, 2022
Urology	September, 2022

#### **Version History**

Date		Comments
October 2022	Version one	

#### Disclaimer

When evidence is lacking or inconclusive, options in care are provided in the guideline and the power plans that accompany the guideline.

These guidelines do not establish a standard of care to be followed in every case. It is recognized that each case is different, and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time.

It is impossible to anticipate all possible situations that may exist and to prepare guidelines for each. Accordingly, these guidelines should guide care with the understanding that departures from them may be required at times.