INITIAL EVALUATION

Palpable mass greater than 2 weeks\(^1\)
- History and physical
- Bilateral mammogram with fetal shielding/ultrasound of breast and nodal basins

Core biopsy

Pathology
- ER/PR status
- HER2 status

Ductal carcinoma in situ\(^2\) (DCIS)

Invasive Breast Cancer

See Ductal Carcinoma In Situ Breast Cancer Non-Invasive Algorithm

See Clinical Stages on Pages 2-3

Special considerations:
- There should be open communication with the patient, obstetrician, and medical, surgical and radiation oncologists.
- Surveillance of children exposed in utero to chemotherapeutic agents should be documented.
- Surgery will not be performed at MD Anderson post 23 weeks gestation.

\(^1\) If metastatic disease at diagnosis, individualized treatment with multidisciplinary planning

\(^2\) Patients with DCIS should not receive chemotherapy.
Clinical Stage I

Surgical consult for primary treatment

Maternal Fetal Medicine (MFM) consult to determine fetal age and delivery date

Individualized care as clinically indicated including primary surgery, if preoperative chemotherapy is not indicated and if fetal age is less than 23 weeks gestation at MD Anderson

If primary surgery is necessary between 23 weeks and delivery, surgery to be performed at outside facility with complete obstetrics unit available

Pathology review:
- ER/PR status
- HER2 status

Is patient a candidate for postoperative systemic therapy?

No

Individualized surveillance program based on clinical indication

Yes

Medical Oncology consult

Systemic therapy: anthracycline or taxane chemotherapy as medically appropriate once fetal age is greater than or equal to 12 weeks

Response?

Yes

MFM follow-up prior to each anthracycline chemotherapy every 3-5 weeks prior to taxane chemotherapy

Consider holding chemotherapy by week 35 of gestational age or 3 weeks prior to a planned delivery

Continue systemic therapy until completed

After delivery of baby, individualized care as clinically indicated

No

Individualized therapy based on multidisciplinary conference recommendation

Surveillance

Special Considerations:
- There should be open communication with the patient, obstetrician, and medical, surgical and radiation oncologists.
- Surveillance of children exposed in utero to chemotherapeutic agents should be documented.
- Surgery will not be performed at MD Anderson post 23 weeks gestation.

1 Anthracycline therapy prior to taxane therapy is the preference

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This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson’s specific patient population; MD Anderson’s services and structure; and MD Anderson’s clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers.

CLINICAL STAGES

Clinical Stage II or III or suspicion of distant metastatic disease

Pathology review:
- ER/PR status
- HER2 status

Surgical consult and Medical Oncology consult to determine preferred sequencing of systemic and local therapy

Ultrasound of liver
- Chest x-ray with fetal shielding
- MRI thoracic and lumbar spine screening
- MFM consult to determine fetal age and delivery date

Surgical resection

Evaluate tumor response as clinically indicated, consider at least after 4 cycles of anthracycline-based chemotherapy or 12 cycles of taxane-based chemotherapy

Tumor response?

- Yes
  - Continue systemic therapy until completed, followed by:
    - Surgical resection, followed by:
      - Radiation therapy (after delivery of baby)

- No
  - Surveillance

Individualized therapy based on multidisciplinary conference recommendation

Initiation of systemic therapy should be delayed until fetal age greater than or equal to 12 weeks

Systemic therapy

Fetal age greater than or equal to 12 weeks?

- Yes
  - MFM follow-up prior to each anthracycline chemotherapy or prior to starting taxol and every 3-5 weeks during taxol therapy
  - Consider holding chemotherapy by week 35 of gestational age or 3 weeks prior to a planned delivery

- No
  - Initiation of systemic therapy should be delayed until fetal age greater than or equal to 12 weeks

Special Considerations:
- There should be open communication with the patient, obstetrician, and medical, surgical and radiation oncologists.
- Surveillance of children exposed in utero to chemotherapeutic agents should be documented.
- Surgery will not be performed at MD Anderson post 23 weeks gestation.
- Anthracycline therapy prior to taxane therapy is the preference.
- Following the delivery of baby:
  - Additional chemotherapy, endocrine, biologic therapy and/or radiation as clinically indicated.
  - Review labor, delivery, and neonatal records

1 Anthracycline therapy prior to taxane therapy is the preference.
2 Following the delivery of baby:

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SUGGESTED READINGS


Invited Articles


DEVELOPMENT CREDITS

This practice algorithm is based on majority expert opinion of the Breast Medical Oncology Faculty at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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