Breakout session

LIVING BEYOND
BREAST CANCER®

Hosted in partnership with Project Life

From information to empowerment

Understanding pathology reports and scans in metastatic breast cancer

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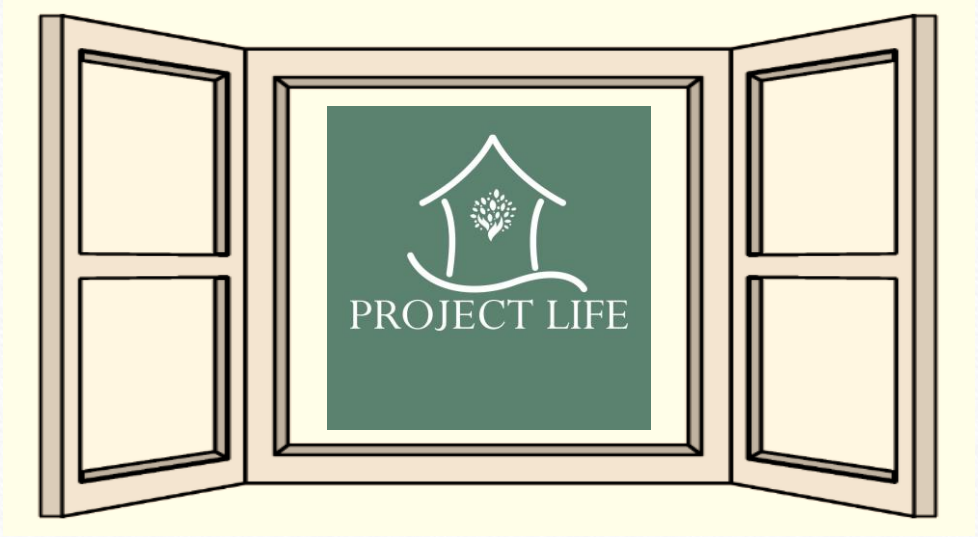
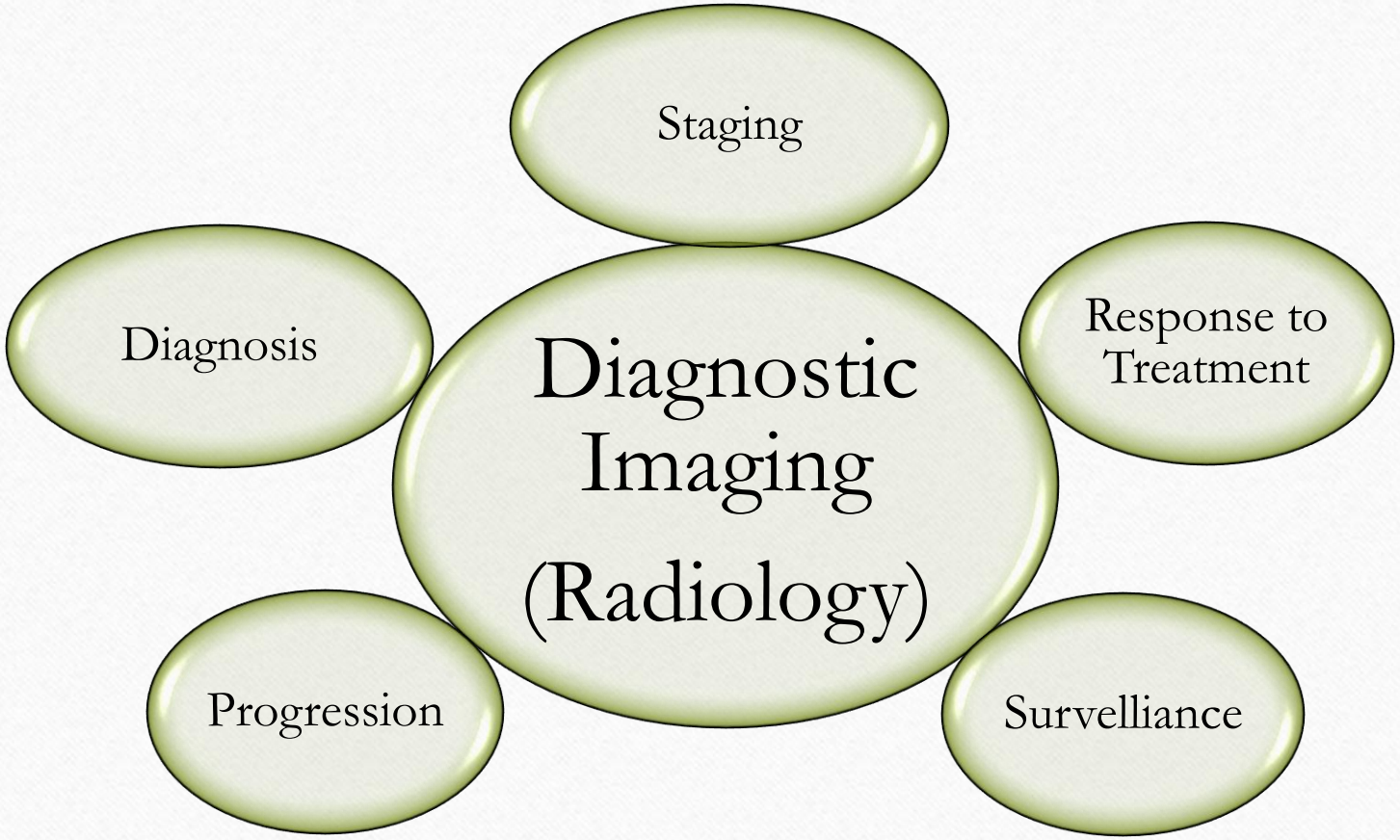
Panelists: Amy Beumer, PhD, and Amy Russell-Parliman, MHA

The 3 W's of Diagnostic Imaging

Why? What? When?




Staging
Diagnosis
Diagnostic Imaging (Radiology)
Response to Treatment
Progression
Survelliance

Modalities

- **X-Ray**
  - Plain film radiography/Portable (Snap shots)
  - Fluoroscopy (continuous Imaging)
- **IR**-Interventional Radiology
- **CT-Computed Tomography** (Cat Scan/CT Scan)
- **Mammography** (Mammo)/**Bone Density** (Dexa)
- **Nuclear Medicine**
- **Ultrasound**
- **MRI**-Magnetic Resonance Imaging

Diagnosis

- Occurs with screening due to age or Family History and Risk Factors
- Mammography, Ultrasound, MRI
- Being Diagnosed de novo happens when patients have symptoms and have bloodwork and imaging
  - Abnormalities in imaging under X-Rays, CT, US, MRI
  - Procedures to tell subtypes are performed under Interventional Radiology

Staging

- CT
- Ultrasound
  - Echocardiogram for baseline heart health
- MRI
- Nuclear Medicine
  - Bone Scans
  - PETCT
  - PETMRI (limited to major academic centers)

Surveillance/Response to Treatment

- A stage IV diagnosis and imaging modalities are determined by the location of the metastatic lesions, the number of lesions, and their molecular sub-type (example: ER, PR, HER2), symptoms.
- Decisions on how frequently you are scanned and/or the Imaging modalities used are the preference of your oncology team.
- CT of Chest, Abdomen, and Pelvis with Nuclear Medicine Whole Body Bone scan may be used for bone only metastatic lesions as well as visceral metastatic lesions (frequently used this way).
- PETCT with FDG can be used for bone only and visceral metastatic lesions.
- Cerianna (FES) PETCT is ONLY used for ER+ patients. Patients often need to hold treatment for accurate results.

Surveillance/Response to treatment

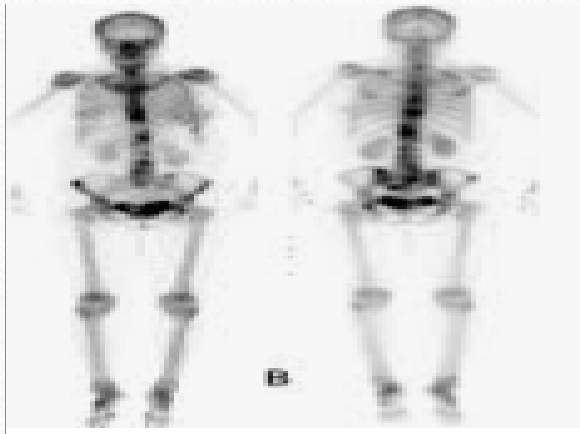
- MRIs can be used to watch lesions in the spine, brain, and visceral areas. MRI protocols are built to look at specific areas, not large areas of the body. Lungs and Digestive findings can also be hard to see on MRI.
- If you become stable on treatment, it is not uncommon for the medical team to stretch out time in between imaging studies.
- Bone Density/DEXA Scan checks for Bone Health.
- Ultrasound-Echocardiogram-Heart Health

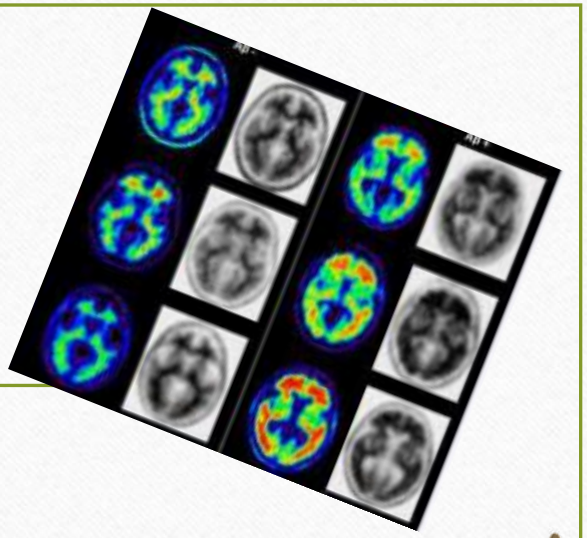
Lobular Breast Cancer can be hard to be seen on imaging due to the sheet like growth of these cells

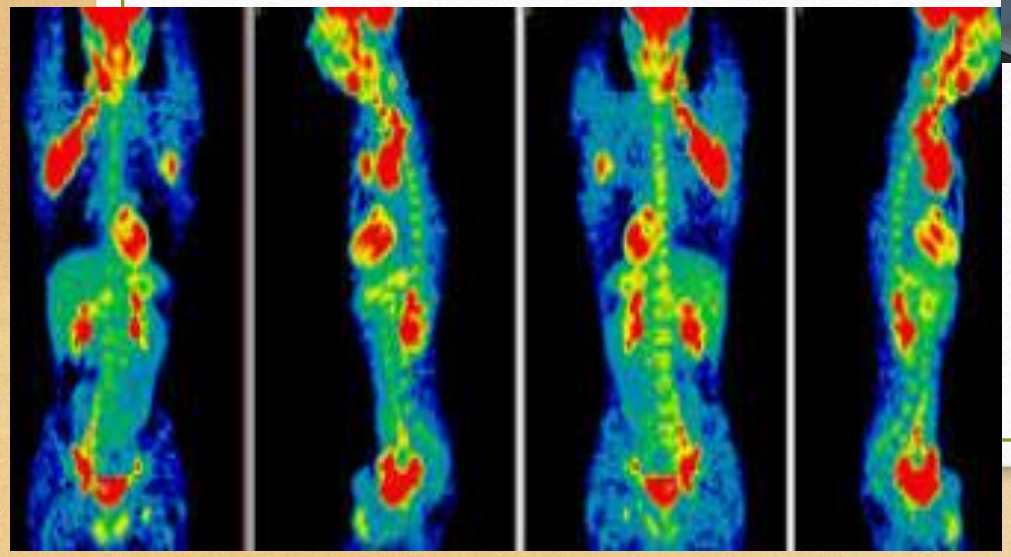
Progression

- CT, Nuclear Medicine, MRI, Ultrasound, Echo Cardiogram
- Imaging at time of progression will depend on what imaging is used for surveillance. If the radiologist suggest different scans to check other areas for progression, or specific modality to see a more focused view.
- Often the team will order more imaging and want to do a new biopsy to see if properties of your original cancer have changed due to resistance to current therapy.
- Interventional Radiology maybe used for biopsy of new lesions, or to treat growth in existing lesions.

Nuclear Medicine







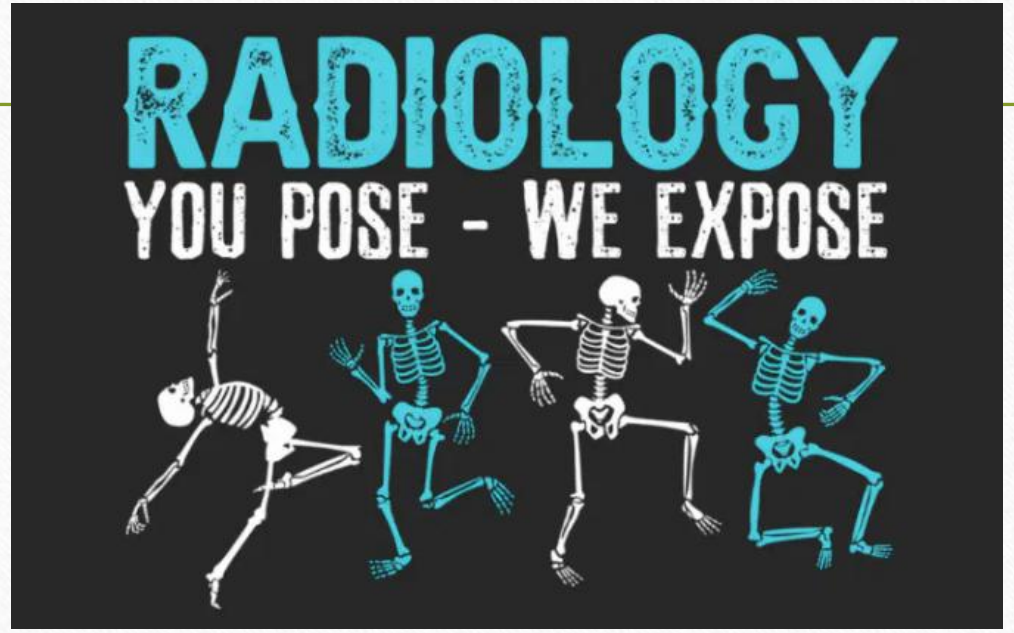
Radiation Therapy (maybe referred to as radiotherapy)

- Radiation Therapy is not part of radiology. It is often located in Oncology. (RadOnc)
- Needs a team of people
  - Radiation Oncologist
  - Physicist
  - Radiation Therapist
  - Oncology Nurse
- Prior to Radiation Therapy your case is often discussed at a Tumor Board.
- This team of people is multidisciplinary.
- Each case is discussed and is personalized protocol for the patient.

Key Take Aways

- Ask Questions
- Many patients have "**scanxiety**"
- Make sure you are properly prepped for your diagnostic testing to ensure best imaging possible.
- Give detailed history to the technologist or professional doing the intake at time of procedure.
- Each Modality has protocols; staff are specialty trained in each area.
- Exam type is based on your sub-type and metastatic lesion location in your body.
- Frequency and type of exam depends on your response to treatment and medical team preference.
- Try to keep your imaging with same health system. (Helps with comparison)

Thank You



Please Do Not Ask the Technologist What they See!

They are not legally allowed to give results!