# How to set up a breast center and improve efficiency



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# **Radiology Evolution**

- Procedural and diagnostic competence as well as respect and empathy for the total patient experience from the entire staff
- Dramatic change from increasing technology and physician needs to what really matters to patients -"Better value and better outcomes"
- Radiologists find themselves leading the change from just image interpreters to health care change shapers
- This is happening via information integration and Patient Centered Care



McGinty G, et al. IT Infrastructure in the Era of Imaging 3.0 JACR 2014; 11 (12): Part B, 1197-1204.

### Breast Imaging: Face of Imaging

Imaging 3.0: Expanded role of the radiologist

Maximize radiologist's value

Improve the patient experience

- Understand patient's needs
- Maintain practice flexibility to maximize patient satisfaction
- Radiologists partner with patients to provide valuable care
- Imaging paradigm stresses importance of efficiency and satisfaction

### The Role of the Radiologist

- The role of the breast imager has expanded over the years historically rads had little to no patient interaction
  - The radiology report served as primary interface between radiologists, patients, and the patients health care teams
  - Radiologists primarily "invisible" to patients, reading images from workstations





#### MACRA & MIPS

Incentives for value and quality of care over volume

- Four categories weighted to give final performance score
  - Quality
  - Advancing Care Information
  - Improvement Activities

Cost

Clinicians must participate in MIPS in order to avoid downward payment adjustments and potentially receive upward adjustments

## Patient satisfaction = profitability

A happy customer will tell 4-6 people, one unhappy customer will tell 9-15

So how do we achieve optimal patient satisfaction while providing optimal and efficient care?

### Communication Key to Patient Centered Care

- Breast imager poised to play vital role with patient through face-to-face communication
  - Meets with patient early on in patient's care (performing US), discusses management options, reviews and performs (biopsy/loc) and provides results after procedure
  - Communication with patient's family (if opportunity presents)
  - Fosters the radiologist-patient relationship that can be carried throughout the course of the patient's care



### Direct Radiologist-Patient Communication

- Clear communication that includes supportive and compassionate language may improve patient compliance and follow-up
- 90% of patients prefer communication of breast imaging results directly from radiologist
- Direct, empathetic communication leads to higher levels of patient satisfaction, treatment adherence, and improved overall clinical outcomes



Holz K, et al. Communication in Breast Imaging: Lessons Learned at Diagnostic Evaluation. JACR 2016; 14(5): 665-667.

Improving the patient experience while providing top care is the goal, and an excellent imaging center is at the heart of how to achieve that goal

But with the increasing demands being placed on imaging centers and large volumes of patients, the question is how?

#### Screening Mammography Case Study by Chhor et al

#### Satisfying the needs of the individual = improved satisfaction

- Address the fears of mammography through education ahead of appointment and during
  - Benefits and adverse effects: breast compression, pain, false positives
  - ► Wait times for imaging: offer same day appointments
  - Wait time for results: offer same day results and work-up may not be operationally efficient but = patient loyalty, patient satisfaction and decreased patient stress
  - Individualized breast cancer screening: Cancer risk onsite genetic counseling, Breast density screening US

Chhor CM, et al. Integrating Customer Intimacy Into Radiology to Improve the Patient Perspective: The Case of Breast Cancer Screening. 2016 AJR

#### **Outpatient Breast Imaging Center**



- ALL Digital with DBT
- Breast Ultrasound
- Breast Magnetic Resonance Imaging
- Multi-modality Breast Biopsy
- Cancer Risk Assessment & Genetic Counseling

"Since 1975 our mission has been to provide our patients with the highest quality breast imaging and excellence in care that considers both their physical and emotional well-being"

### Practice Growth - Validation of Providing Good Care

Added 6 satellite facilities since 2009

- Screening mammography, screening ultrasound– studies read remotely while patients wait for results
  - Also same day diagnostic evaluation involving additional mammographic views
- This has helped us reach patients in areas away from our main imaging center
  - This has also reduced our high volume at the main facility, improving efficiency and throughput

#### Patient Volume and Return Rate

- Patient volume has increased 22% from 2010 to 2017 82,565 to 105,877
- After the Breast Density reporting laws, we have seen a large increase in screening ultrasound for women with dense breasts

Screening Ultrasound increased from 2010 to 2017 – 46 to 10727

- ► Value for patients: U/S CDR 3/1000
- Our Repeat Patient Return rate from 2010 to 2017 is 91.5%

# What do patients want in a Breast Center?

- Survey of women having screening mammography, diagnostic mammography, or advanced care for biopsy proven cancer
  - Strong preference for having all imaging studies at the same location
  - Screening mammography, abnormal mammography work-up and breast cancer evaluation scoring a 9.19 out of 10 mean rating

#### Preference for Immediate Results

- Patients surveyed on knowledge of the radiologists, interest in, and perceived benefits of reviewing exam results with imaging expert
- Assessed patient preferences and perception regarding direct communication with radiologist, focusing on medically underserved demographic
  - ► 68% expressed interest in immediate results
  - 81% expressed an interest in reviewing results with an expert
  - 88% anticipated that reviewing results with an expert would be beneficial

Koney N, et al. Patients Want to Meet With Imaging Experts. J Am Coll Radiol 2016;13

#### Same-Day Results

Survey distributed randomly to 129 women ages 35-70 during a visit to their PCP on their preference to receiving their mammography results

67% preferred immediate results

- 78% willing to wait 30-60 minutes for the results
- Only 11% were willing to pay additional fee associated with immediate reporting

Raza S, et al. Patient Expectations and Costs of Immediate Reporting of Screening Mammography: Talk Isn't Cheap. AJR 2001;177

### **Results Communication**

Questioned patients about when they would like to receive screening mmg results

| Willing to wait for results | 549 (24.8%) |
|-----------------------------|-------------|
| Within 24 h                 | 541 (24.4%) |
| Within 1-2 d                | 476 (21.5%) |

Over 70% of patients prefer results within 48 hrs, with almost half having preference within 24

Shah, B. A., et al. Communicating Mammography Results: By What Method and How Quickly Do Women Want Their Screening Mammogram Results? *JACR* 2019

#### Same Day Results



- We have always offered same-day results while the patient waits pre-COVID
  - Half of our screening patients stayed for results
  - Half of our screening patients left without results
    - 7% are recalled for additional testing
    - May include additional images, ultrasounds, and/or biopsies
- Satellite imaging centers
  - Patients referred to the main imaging center for further diagnostic evaluation if more than additional views are required or they can wait until the physician was at that office (one day/week)

#### Challenges of this Model

- Not all breast imaging facilities have enough subspecialty trained mammographers to provide immediate results
- Face-to-face communication time consuming, and some radiologists feel uncomfortable
- Many facilities operationally can't provide same day results or workups due to reduced efficiency that would create and, in the end, reducing access for other women to have screening

Chhor CM, et al. Integrating Customer Intimacy Into Radiology to Improve the Patient Perspective: The Case of Breast Cancer Screening. 2016 AJR

### Challenges of this Model: Emergence of COVID-19



- As COVID-19 spread, the CDC recommended delaying all nonemergent tests, visits, and elective procedures— screening mammography services were included in this category
  - ACR, SBI mirrored this recommendation
  - Diagnostic breast imaging remained an essential service
- Such delays caused an unprecedented disruption in the diagnosis and treatment of the 325,000 projected cases of breast cancer in 2020
  - Many facilities reported backlogs of thousands of patients

### Challenges of this Model: Rescheduling after Shutdown

- The health impact of delaying imaging for a large proportion of patients is unknown and difficult to estimate
- Although the social distancing and stay-at-home orders have reduced COVID-19–related mortality and morbidity, they also resulted in an increase in non-COVID-19 deaths and delays in care
- Getting patients back in took planning and a phased process to ensure adequate social distancing Ex. utilization of social media to inform patients on safety measures
- Communication extremely important intra-office, with referring providers, and with patients

# Catching up

- Facilities were faced with large volumes of patients that needed to fit into the schedule to ensure that they do not miss their yearly screening
  - Extended hours
  - Weekend hours
- Getting these patients in entailed ensuring that they were aware of the practices safety measures in place to mitigate the COVID-19 exposure risk

#### We are here for your breast health needs

Throughout the Coronavirus 2019 (COVID-19) crisis, Elizabeth Wende Breast Care has worked tirelessly to develop operational protocols. These new guidelines are in place to advance our safety precautions and create an environment of safety. Our exceptional care continues. We hope to see you soon.



SAFETY FIRST: All patients and staff are required to wear masks covering nose and mouth. Additionally, EWBC pre-screens patients for symptoms of COVID-19 during the scheduling process and again upon arrival. Daily health screening of all EWBC staff. We are not allowing companions in the building at this time, unless the patient is a minor or needs the services of an aide.



BEYOND CLEAN: We are going above and beyond to provide a comfortable and safe environment. Our team is cleaning and handwashing on a continual basis throughout the day. Sanitizing our imaging equipment after every patient, but also deep cleaning all waiting & common areas, exam rooms & disinfecting any commonly touched items and surfaces.



MORE SPACE: We are practicing social distancing throughout all our offices. You will notice the appointment times and our furniture is more spread out to limit interaction.



BREAST IMAGING ONLY: For your safety, you can rest assured we only perform breast imaging at each of our free-standing locations. Our offices in Brighton, Batavia, Geneseo, Greece, Victor and Webster all have plenty of parking near entrance to building.

### Changes to Workflow in Radiology

- Restructured reading rooms
- Home PACS
- Telehealth and use of electronic communication
- What these changes have meant:
  - Effects on mental health have been significant; over 60% of surveyed radiologists rated anxiety as 7/10 during the pandemic

### **Electronic Communication**

Many practices have turned to use of electronic communication with patients to streamline notification of, for example, appointment changes, rescheduling, providing results Due to COVID your appointment time may have changed. Please double check your appointment date and time.

You have an appointment scheduled for:

Date: Monday, October 19, 2020 Time: 9:00am Location: Brighton

I would like to:

Confirm appointment

Reschedule appointment

Submit

This message was sent by Elizabeth Wende Breast Care.

#### **Post-COVID Results Notification**

- Our facility went from patients waiting in the office for same-day results, to a new approach in the post-pandemic world
  - Screening patients option for sameday text message or email notifying them of their normal results
    - If additional work-up is needed, the patient is personally called by a dedicated staff-member
      - May be able to return sameday, or may have to be scheduled a different day

#### You have results available

To gain access to your results, please enter the following information:



### Giving Control back to the Patient

Providing online scheduling options = convenience and flexibility for patient

Promotes patient control while increasing manpower efficiency for the practice, decreasing patient wait-times on the phone

#### Availability of Online Appointments



### **Overcoming Challenges**

- With the ever-changing field, how does a facility keep up with providing quick and efficient care to patients and ensuring the patients are happy?
- Well-established workflow is key!
  - Educated and dedicated staff
  - Support staff with specific, specialized roles
- Maintaining focus on providing the best care!
  - Allow radiologist to focus on primary job of image interpretation
  - Increasing the quality of services provided

#### It Takes Commitment

- Within our breast center we have many departments with very specific job duties and responsibilities
- Requires working together; each department is vital to ensuring a smooth and comfortable experience for the patient
- Focusing on working together for the good of the patient leads to the success of the practice

#### How We Make it Work

- Every staff member has specific roles
  - Work hours are staggered to accommodate patient schedules
  - Patients are scheduled from early in the am to late evening
  - Facility is open all day- achieved by staggering lunch breaks for staff
  - Periodic Saturday hours and late day appointments to fulfill NYS requirements
- Ability to work-in additional patients that come in without a scheduled appointment or when sent by referring physician adjusting schedule or have enough flexible staff to absorb additional patients
- Offer all examinations at one location; combining exams in one appointment

### **Call Center**



- First point of contact with patients
  - Schedule screening mammograms, diagnostic appointments, answer questions, and direct transfers
- Manage patients who were automatically-scheduled for their next year's screening visit and update demographics

### Automatic Scheduling

- At the completion of a yearly screening appointment, a program automatically schedules patient for a similar time one year in the future
- 5th year of automatic scheduling; helped limit daily calls for scheduling yearly screening mammograms
- 71% of auto scheduled patients keep their auto-generated appointment
- Automatic scheduling helps evenly distribute patients throughout the week and amongst physicians, increasing efficiency and flow of patients through the practice
- The schedules are built around our patients; not the doctors

### **Reception Staff**

- Confidential patient check-in
  - Staggered check-in windows with frosted glass
- Here and throughout the center, sound masking technology utilized to increase patient privacy
- Highly trained regarding HIPAA regulations and patient privacy by our HIPAA Security Officer
  - Receive recurring training and updates





#### **Front Reception**

- In Person Patient Portal support on provided laptops
- Staff (advocates) to assist with logging in and completing health history form



#### The Dashboard

- Managing high volumes of patients requires a precise tracking system
  - The Dashboard: incorporates current appointment schedule, individual patient information, ability to retrieve past information
- Views from different positions:
  - Check In Desk
  - Sonographer Rooms
  - Core Rooms
  - Many more
  - Shows patient movement through facility pertinent to each department

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#### Patient Central - Electronic Chart

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| Clinical Notes                  | 3537582 11-20-2017 | 11-21-2017 Patient Result Sheet  |           |                       |              |          |
| Comments                        | 3536113 11-20-2017 | 11-20-2017 Dolbey-R1             |           |                       |              |          |
| Core Biopsy                     | 3535674 11-20-2017 | 11-20-2017 Clinical summary      |           |                       |              |          |
| Forme                           | 3535364 11-20-2017 | 11-20-2017 Receipt - Printed     |           |                       |              |          |
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#### **Patient Advocates**

- Meet with new patients; explain how our office works and the services we offer
- Help navigate patients through their visit
- Keep family members informed of patient's progress
- Visit waiting rooms to address any questions/concerns
- Review of all surveys
  - Address feedback personally as needed
- Recommendations and referrals to cancer support services for un/under-insured patients



#### **Benefits Both Practice and Patients**

- Koh, et al. quantitative, descriptive study of patients with newly diagnosed breast cancer utilizing oncology nurse navigator services and the effect on subsequent care
- Compared to patients not using a navigator:
  - Reduction in time interval from biopsy to treatment
  - Faster resolution of barriers prior to treatment
  - Higher patient satisfaction with process and results
- Lin et al. aspects of navigator's job and the time spent with patients
  - Navigators spent an average of 2.5 hours/patient which included enrolling patients recently diagnosed into treatment, identifying barriers to treatment, and addressing said barriers—mostly financial barriers
- Patient navigators save time and frustration for doctors and patients

#### **Technologist Digital Coordinator**

Tracks location of patients and technologists to manage patient flow through the office

 Patient color coordinated for exam type



### Technologists

#### Duties

- Mammography
- Assist with stereotactic and US guided biopsies
- Ductography
- QC compliance
  - MQSA requirements
- MRI (certified) Technologists



## Sonographers

- Collaborate very closely with Radiologists
- All certified in breast ultrasound
- Perform screening ultrasound due to breast density
- Deliver results to patients after ultrasound if normal
  - Alert radiologists to any issues seen
  - Assist with other appts as needed



### Adding Value for Better Care

In light of increased patient education and higher expectations – need to offer the latest technology and services, what patients will perceive as "better care"- a factor in overall patient experience

Patients find this important for providing optimal care

<u>New technologies/services</u> = offering "better care"

DBT

- Screening US for women with dense breasts
- Risk Assessment Program
- High risk screening MRI

#### DBT

- Decreased recall rates and increased cancer detection rates make it worthwhile and valuable for patients
  - Though increased read time for physician
- Reduction in call backs= reduction in patient time and anxiety, ultimately helping to increase in patient satisfaction



Dang PA, et al. Addition of Tomosynthesis to Conventional Digital Mammography: Effect on Image Interpretation Time of Screening Examinations. Radiology 2014; 270: No 1:49-56

#### Supplemental Screening US

- Hooley et al. [Radiology] "Screening US in Patients with Mammographically Dense Breasts: Initial Experience with Connecticut Public Act 09-41" demonstrated that screening US in this population can aid in the detection of mammographically occult cancers
- Weigert. [Breast J 2017] "The Connecticut Experiment: The Third Installment: 4 Years of Screening Women with Dense Breasts with Bilateral Ultrasound" -over 4 years of screening women with dense breasts, PPV doubled = increased accuracy of identifying lesions for biopsy, with stable CDR, cancers detected small and node negative

# **Breast Density Laws**



### 2019 FDA MQSA Changes

- Ensure that mammography reports and summaries include, at a minimum, the effect of breast density in masking the presence of breast cancer on a mammogram
- The qualitative assessment of the provider who interpreted the mammogram, and a reminder to patients that individuals with dense breast tissue should talk with their providers if they have any questions or concerns about their summary

#### The Map Is All Pink!



## Offering Supplemental Screening US

- Breast centers to adapt to (potential) influx of patients requesting screening services
  - Screening mammography
  - Screening mammography and screening ultrasound for those with dense breast tissue

Offering additional services to patient at the same time as their mammogram= forceived patient satisfaction

### Risk Assessment – Tailored Patient Services

Requires additional staff with applicable software tools

- Genetic Counselor and support staff
- Provides increased education to patients patients feel this gives them more control of their health care
- Improve cancer detection through adding appropriate additional screening

MRI

Providing services at one location is something we know patients prefer- finding ways to incorporate additional services can lead to increased patient satisfaction and their perception of receiving better care



#### Risk Assessment



- 1061 screening mammography patients surveyed regarding risk estimate communication; 503 patients responded
  - For risk <20% and >20% lifetime breast cancer risk, patients preferred to learn of their estimated risk in great detail (64% and 85%)
- If facilities provide risk estimate, be prepared to provide results and be aware of how patients want to receive those results

Amornsiripanitch N, et al. Screening Mammography: Patient Perceptions and Preferences Regarding Communication of Estimated Breast Cancer Risk. 2017 AJR;208

### Identifying the Higher Risk Patient

- Risk factors from patient's health history sheet are entered into a Cancer Risk Assessment software tool by front desk staff
- The risk for breast cancer is calculated; if they qualify as high risk, they will be tagged in our system



- High risk letter is generated with the patient's results sheet and reviewed with patient before they leave the office
  - > Options such as Genetic Counseling and high-risk breast MRI will be discussed

#### **Breast MRI**

- Separate suite with access to the main breast center
  - Dedicated staff
  - Schedule and screen patients
  - Insurance authorization



#### Screening the Higher-Risk Patient

171 high risk women screened with mammography, US and MRI

6 cancers found

All (100%) were detected with MR

> 2 (33%) with mammography

▶ 1 (17%) with US

- Screening MR had a higher biopsy rate but helped detect more cancers
- This study supports MRI as an important complement to mammography in screening women at high risk

#### **Behind the Scenes**

- Medical Records
- Billing
- Bookkeeping
- Transcription
- Medical Outcomes
- Recall/Cytology

- IT/PACS
- Clinical Research
- Facilities
- Human Resources
- Practice Administrator

## Practice Efficiency

Importance of workflow design and support staff to increase efficiency and individual physician satisfaction; prevents burnout



Physicians read the mammograms and see the patients

#### Allow Radiologists to Focus on Key Aspects of Patient Care

Requires working long days

- Average day is longer than typical working through lunch hour call center and facility always open
- Read screenings and see diagnostic patients throughout the day
  - Also read DXA and MRI throughout the day
- Perform same-day work-up and interventional procedures
- Call all biopsy patients with the results
- Dictating and signing reports

# Separation of Image-interpretive and non-image-interpretive tasks

- Impact of separating image-interpretive and nonimage-interpretive tasks on perceptions of workplace disruptions, workload, and overall satisfaction
- Survey measured radiologist perceptions before and after intervention
- ► The post-intervention survey showed:
  - Increase in perceived ability to interpret images efficiently, workplace satisfaction
  - Decrease in mental effort required to reach a desired level of productivity
- Highlights the importance of support staff to allow Radiologist to focus on image interpretation

Lee MH, et al. Radiology Workflow Dynamics: How Workflow Patterns Impact Radiologist Perceptions of Workplace Satisfaction. 2017 Acad Radiol;24

#### **Medical Assistants**

- Work with Physicians
  - Each Physician has a dedicated assistant to do any administrative ta day and to transport patients
- Prepare and deliver normal screening results to patients
- Assist with patient flow
- Assist with procedures
- Specimen preparation





# Physicians

- Work out of individual offices with adjoining exam room/ultrasound room
  - Helps maintain efficiency with high volume of patients
- Ergonomic workstation: sitting or standing
- Scheduling template assigned based on the numbers of physicians working





### Physician's Day

Requires working long days 730-6 pm usually

- Average day is longer than typical working through lunch hour call center and facility always open
- Read screenings and see diagnostic patients throughout the day
  - Also read DXA and MRI throughout the day
- Perform same-day work-up and interventional procedures
- Call all biopsy patients with the results
- Dictating and signing reports

#### **Patient Satisfaction**

Patient and referring physician satisfaction/surveys

- Know expectations and exceed them
  - Offer the latest technology
- Appointment scheduling
  - Prompt and courteous
- Technologist interaction
  - Knowledgeable and efficient
- Minimize appointment wait times
- Facility cleanliness

THE OFFICE IS FRIENDLY, EFFICIENT & CLOSE TO MY HOME. YOU GET YOUR RESULTS QUICKLY & THEY MAKE YOU A FOLLOW UP APPOINTMENT FOR THE NEXT YEAR. ALL THIS MAKES TAKING CARE OF YOURSELF EASIER. THANK YOU FOR THAT

EWBC Patient, Greece Office

#### **Evaluating Patient Satisfaction**

- Two recent studies Ginocchio, et al. (AJR 2017) and Boos, et al. (AJR 2017)
  - Wait time, patient-staff communication, staff caring, professionalism, pleasantness, helpfulness, and efficiency were important factors for high patient satisfaction
  - Patients' free text comments regarding their experiences in undergoing radiologic imaging were largely influenced by staff behavior and communication
    - example: caring, professional, respectful, cold, rushed, uninformed

### Factors Influencing Patients' Perspectives

- Through use of online ratings website- identified factors most commonly associated with a positive or negative patient perception of radiology imaging centers
- Overall 13.6% of comments were related to the radiologist, 86.4% were related to other service quality aspects
  - Schedulers, receptionists, technologists and billers heavily influence patient satisfaction

Doshi AM, et al. Factors Influencing Patients' Perspectives of Radiology Imaging Centers: Evaluation of Using an Online Social Media Ratings Website. *J Am Coll Radiol* 2016; 13(2): 210-216.

## Summary

- Be prepared to change with the times
- Initiate continuous quality improvement programs
- Understand the factors that are important to patients when evaluating overall satisfaction
- In order to meet demands of patients, having dedicated and educated support staff is key, as well as efficient workflow to allow physicians to focus on image interpretation and diagnostic evaluation of patients



### Summary

Putting the initial effort into patient satisfaction and creating specialized support roles creates a superior environment for physicians employees and patients

#### You can see the results



99.03% Would Recommend (11,658/11782)

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