Improving Compliance with Screening Mammography Guidelines in an Insured Population by Initiating a Mobile Mammography Program to Increase Access in a Metropolitan Area

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Recommended Frequency of Screening Mammography Continues to be Debated

• Annual screening mammography endorsed by:
  – American Cancer Society
  – American College of Radiology
  – Society of Breast Imaging
  – American College of Obstetricians & Gynecologists
  – Our institution’s breast imaging faculty & staff
Recommended Frequency of Screening Mammography Continues to be Debated

- The United States Preventative Services Task Force (USPSTF) recommends screening mammography every two years

Whichever screening mammography guideline you support, many women are not in compliance

- Even women whose health insurance covers screening mammography

- Even women in metropolitan areas where access to screening mammography facilities is NOT limited
Background

• The American Cancer Society says lack of time is the number one reason that women do not undergo annual mammograms.

• Onitilo et al found: “Time to the nearest mammography center was predictive of missing mammograms.” (Am J Roentgenol. 2013 Nov; 201(5):1057-63).

Purpose of Our Quality Improvement Project

• To improve compliance with screening mammography guidelines in an insured population in a metropolitan area by increasing convenience of access to screening mammography with a new mobile mammography program.
Mobile Mammo Program’s Goal

• To improve utilization of screening mammography by increasing convenience and minimizing travel time for women who may not undergo screening mammography as frequently as is recommended

Our Mobile Mammography Coach

The Pink Life Saver
Mobile Mammo Program

• Established December 2012
• Operates in urban metropolitan area
• No differences in insurance requirements from those at our hospital’s breast imaging center
• Is in contrast to mobile mammography programs created to service women in rural communities or uninsured

Mobile Mammography Coach

• Full-field digital mammography
• One mammographic technologist
• Driver who also serves as the registrar
1st Three Months of Operation

- Coach visited 4 outpatient primary care clinics in the metropolitan area that are owned by our hospital with one day per week spent at each clinic.

- Radiologists & staff made informational visits to providers at these clinics.

- On days when the coach was at each clinic, a sign indicating that the coach was on site, and that walk-ins were welcome, was displayed in the clinic.

After 3 months...

- Added coach visits by request to:
  - Grocery stores
  - Local businesses for their employees
  - Community special events

- Weekly visits to each of our outpatient clinics continued
Subsequently...

• Number of patient visits at each outpatient clinic & special event were tracked.

• Based upon utilization, the number of coach visits to each site in the upcoming month was adjusted.

Data Collection

• IRB approval for electronic medical record review.

• Review of the electronic medical record revealed which mammograms performed on the coach led to a diagnosis of breast cancer.
Data Collection

- Date of last mammogram was obtained from electronic medical record if prior mammogram was performed at our institution.

- If performed at an outside institution, date was obtained from outside institution images received for comparison during the interpretation process.

- Otherwise, used patient’s recollection of the date of her last mammogram.

Results after 13 months

- 1253 women underwent screening mammography on the mobile coach

- 7 breast cancers were found:
  - 5 invasive ductal carcinomas
  - 1 invasive lobular carcinoma
  - 1 ductal carcinoma-in-situ
Results

• Of 1253 women screened on the coach:
  – 1175 (97.5%) had not undergone mammography in the past year
  – 657 (54.6%) had not undergone mammography in the last two years
  – Median time since prior mammogram: 1.9 years.
  – Longest time since prior mammogram: 24 years

Results

• Of 1253 women screened on the coach:
  – 163 (13%) were baseline mammograms
Results

• Of 1253 women screened on the coach:
  – 277 (22.1%) at special events
  – remainder at the primary care clinics
  – 372 (29.7%) of women screened on the coach saw the coach and “walked-in” without an appointment

Patient Satisfaction Surveys

• All completed surveys were scored 4 or higher (1 is lowest & 5 is highest)

• Many wrote on the surveys that ease of access provided by the coach inspired them to obtain their overdue mammogram
Program Costs

- In first 13 months, our mobile program required 960 patients to cover program costs
- 1253 patients were examined (131% of break-even number)

In first 13 months of Mobile Program:

- 1253 women were screened on the coach
- 8816 women were screened at our hospital’s breast imaging center
- Addition of the mobile coach increased our screening mammography volume by 14.2%.
Conclusions

• The mobile mammography program is a success!

• The program achieved its mission of increasing compliance with screening mammography guidelines, while meeting program costs, & led to the diagnosis of 7 breast cancers.

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