



**SAM Questions – Saturday, April 14**

**Saturday, April 14th, 2018 8:00am-8:30am – Geraldine B. McGinty, MD**

**SAM - The Road to Value is as Easy as 3.0**

1. Under the MIPS program what percentage of fee for service medicare payments will be at risk in 2025?
  - A. 2%
  - B. 9%
  - C. 15%

**Answer: B**

**Reference:** <https://www.acr.org/Advocacy-and-Economics/Radiology-Economics/MACRA-APMs>

2. Changes to the CPT codes for mammography effected in 2017 mean that:
  - A. CAD can no longer be performed
  - B. Reimbursement for CAD is now bundled into the mammography code
  - C. Practices can bill separately for CAD if performed

**Answer: B**

**Reference:** <https://www.acr.org/Advocacy-and-Economics/Coding-Source/ACR-Radiology-Coding-Source-May-June-2017/Breast-Imaging-FAQ>

**Saturday, April 14, 2018 8:30 AM – 9:00 AM - Jocelyn Rapelyea MD**

**SAM - Expanding the Footprint of the Breast Radiologist**

1. Which of the following are examples of intentional and unintentional components to one's personal brand?
  - A. Individual marketing
  - B. Manner of conversation with referring physicians
  - C. Quality of work one becomes known for
  - D. All of the above

**Answer: D**

**Reference:** Kalia V, Patel A, Moriarity A, Canon C. Personal Branding: A Primer for Radiology Trainees and Radiologists. *JACR* 2017;14:971-975.

2. Which of the following is the most queried topic in breast imaging?
- A. Efficacy
  - B. Screening guidelines
  - C. Report interpretation
  - D. Safety and what to expect at a screening visit

**Answer: A**

**Reference:** Charlie AM, Gao Y, Heller SL. What Do Patients Want To Know? Questions and Concerns Regarding Mammography Expressed Through Social Media. *JACR* 2017 doi: 10.1016/j.jacr.2017.09.020.

3. Which of the following is a reason for patient online engagement?
- A. Promote own ideas
  - B. Enhance professional networking
  - C. Emotional support and further understanding of concerns
  - D. Follow friends' healthcare experiences

**Answer: C**

**Reference:** Lu Y, Wu Y, Liu J, Li J, Zhang P. Understanding Health Care Social Media Use From Different Stakeholder Perspectives: A Content Analysis of an Online Health Community. *J Med Internet Res* 2017;19(4): e109.

**Saturday, April 14th, 2018 9:00am-9:30am – Stamatia V. Destounis, MD**

**SAM - The Need for Speed - Is Faster Care, Better Care?**

1. A 2016 review of factors that influence patients' perspectives of radiology imaging centers found that a majority of comments were related to what?
- A. The radiologist
  - B. Facility appearance
  - C. Aspects of service quality
  - D. The technologist

**Answer: C**

**Rationale:** 86% of comments pertain to other aspects of service quality, 14% were radiologist related.

**Reference:** 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.

2. What is the effect on the interpretation time of digital breast tomosynthesis in comparison to conventional mammography?
  - A. Interpretation time increases
  - B. Interpretation time decreases by 23%
  - C. Interpretation time remains the same
  - D. Interpretation time decreases by 17%

**Answer: A**

**Rationale:** "Interpretation time with combined tomosynthesis and mammography was 0.9 minute longer (47% longer) compared with digital mammography alone." (Dang, Et al)

**Reference:** Dang PA, Freer PE, Humphrey KL, Halpern EF, Rafferty EA. Addition of Tomosynthesis to Conventional Digital Mammography: Effect on Image Interpretation Time of Screening Examinations. Radiology Vol 270: No 1 (January 2014) 49-56

3. Patient centered care is being emphasized in a series of new initiatives by ACR, RSNA, and the MCRA Act of 2015. What action can be taken by breast imaging practices to help increase patient screening adherence, increase perceived levels of clarity of communication and lower anxiety levels?
  - A. Offer webinars to explain complex content to patients
  - B. Have radiologists directly communicate results and next steps to patients
  - C. Give patients physical and electronic copies of their results and recommendations
  - D. Allow patients to observe recommended procedures before undergoing them

**Answer: B**

**Rationale:** "Approximately 90% of patients prefer communication of breast imaging results directly from the radiologist. Clear communication that includes supportive, compassionate language may improve compliance and follow-up. Better perceived communication with the recommending radiologist is associated with lower anxiety. In fact, perceived clarity of communication is a significant determinant of overall satisfaction in breast imaging."

**Reference:** Holz K, et al. Communication in Breast Imaging: Lessons Learned at Diagnostic Evaluation. JACR 2017; 14(5): 665-667.

**Saturday, April 14<sup>th</sup> 9:30am-10:00am– Jessica W.T. Leung, MD**

### **SAM - Blood, Pus, and More - How to Treat Complications of Breast Interventions**

1. Prior to core biopsy, studies have shown that patients on antithrombotic therapy:
  - A. Do not need to stop therapy as incidence of clinically significant bleeding complications is no higher than in patients not on antithrombotic therapy
  - B. Should decrease dose but not stop therapy prior to core biopsy
  - C. Should stop therapy altogether prior to core biopsy
  - D. Should undergo surgical biopsy instead of core biopsy as hemostasis is more easily achieved in the OR

**Answer: A**

**Rationale:** Practices vary in this country regarding management of patients on antithrombotic therapy prior to performance of core biopsy. Review of the published literature reveals that clinically significant bleeding complications do not occur any more frequently in patients on antithrombotic therapy compared with those not on antithrombotic therapy. Furthermore, the medical risks of stopping antithrombotic therapy appear to outweigh the bleeding risks.

REFERENCE:

Cameron P, Lesko J, London MR. Antithrombotic therapy: evaluation of the safety of performing core needle biopsy of the breast without suspending medication. *Clin J Oncol Nurs* 2018;22:E18-E22

Chetlen AL, Kasales C, Mack J, Schetter S, Zhu J. Hematoma formation during breast core needle biopsy in women taking antithrombotic therapy. *American Journal of Roentgenology* 2013;201:215-222.

2. Pseudoaneurysm in the breast is most readily diagnosed using:
- A. Mammography
  - B. Tomosynthesis
  - C. Ultrasound
  - D. MRI

**Answer: C**

**Rationale:** Pseudoaneurysm may form in the breast after core biopsy as result of vascular injury and bleeding. If post-biopsy hematoma does not resolve after a few weeks, and if a vascular lesion is seen on ultrasound, possibility of pseudoaneurysm should be considered. Doppler ultrasound aids in diagnosis by revealing swirling flow within a mass.

REFERENCE:

Russell T, Creagh-Barry M. Breast pseudoaneurysm arising from core needle biopsy should be left alone. *BMJ Case Rep*. 2017; pii: bcr-2017-221546. doi: 10.1136/bcr-2017-221546.

Ramsingh J, Mariappan M, Henderson S, Musyoka K, Davies M, McKirdy M. Pseudoaneurysm of the Breast-A Case Report and Literature Review. *J Surg Open Access* 2016;2:doi <http://dx.doi.org/10.16966/2470-0991.123>

Filho AR, Machado AF, Vieira SC, do Nascimento Teixeira Dantas AR. Pseudoaneurysm of the breast. *Breast Dis* 2015;35:149-152.

3. Rate of infections after core biopsy that require antibiotic treatment is reported to be approximately:
- a. **0.15%**
  - b. 5%
  - c. 15%
  - d. 25%

**Answer: A**

**Rationale:** Infection after core biopsy using current aseptic techniques is infrequent, reported to be as low as 0.15%.

**REFERENCE:**

Bruening W, Fontanarosa J, Tipton K, Treadwell JR, Launders J, Schoelles K. Systematic review: comparative effectiveness of core-needle and open surgical biopsy to diagnose breast lesions. *Ann Intern Med* 2010;152:238-246.

**Saturday, April 14th, 2018 10:30am-11:00am – Mary Scott Soo, MD**

**SAM - Breast Imaging from the Patient's Perspective**

1. Which of the following factors has a stronger association with **LOWER patient anxiety** related to imaging-guided core needle breast biopsies?
  - A. Younger patient age
  - B. Uncertainty of diagnosis
  - C. Better perceived radiologist-patient communication
  - D. Longer wait time

**Answer: C**

**Rationale:** Better-perceived communications with the radiologist recommending the biopsy and performing the biopsy are both associated with lower patient anxiety. Younger patient age, uncertainty of diagnosis, and longer wait times are all associated with higher patient anxiety in the imaging-guided core breast biopsy setting.

**References:**

Miller LS, Shelby RA, Balmadrid MH et al. Patient anxiety before and immediately after imaging-guided breast biopsy procedures: impact of radiologist-patient communication. *JACR* 2013; 10:423-431.

Steffens RF, Wright HR, Hester MY, Andrykowski MA. Clinical, demographic and situational factors linked to distress associated with benign breast biopsy. *J Psychosoc Oncol* 2011;29:35-50.

Lang EV, Berbaum KS, Lutgendorf SK. Large-core breast biopsy: abnormal salivary cortisol profiles associated with uncertainty of diagnosis. *Radiology* 2009; 250:631-637.

Flory N, Lang EV. Distress in the radiology waiting room. *Radiology* 2011; 260:166-173.

Hayes Balmadrid MA, Shelby RA, Wren AA et al. Anxiety prior to breast biopsy: relationships with length of time from breast biopsy recommendation to biopsy procedure and psychosocial factors. *J Health Psychol* 2017; 22:561-571.

2. Which of the following patient- or procedure-related factors is most strongly associated with **GREATER patient pain** during imaging-guided core needle biopsies?
  - A. Older patient age
  - B. High degree of anticipated pain

- C. Predominantly fatty breast tissue
- D. Ultrasound-guided breast biopsy technique

**Answer: B**

**Rationale:** A high degree of anticipated pain prior to biopsy has been shown to most strongly correlate with pain during imaging-guided breast biopsies; other factors correlating with pain include younger patient age, dense breast tissue, and stereotactic-guidance. Older patient age, lower breast density and ultrasound-guided core biopsies have been associated with lower levels of pain.

**References:**

Soo AE, Shelby RA, Miller LS, et al. Predictors of pain experienced by women during percutaneous imaging-guided breast biopsies. *J Am Coll Radiol* 2014;11:709-16.

Miller SJ, Sohl SJ, Schnur JB et al. Pre-biopsy psychological factors predict patient biopsy experience. *Int J Behav Med* 2014; 21:144-148.

Seely JM, Hill F, Peddle S, lau J. An evaluation of patient experience during percutaneous breast biopsy. *Eur Radiol* 2017; 27:4804-4811.

Humphrey KL, Lee JM, Donelan K et al. Percutaneous breast biopsy: effect on short-term quality of life. *Radiology* 2013; 270:362-368.

3. Which one of the following techniques or behavioral interventions has been associated with **GREATER patient pain** during percutaneous imaging-guided breast procedures?
- A. Use of lovingkindness meditation during biopsy
  - B. Buffering lidocaine with sodium bicarbonate for anesthesia injections
  - C. Use of hypnosis during biopsy
  - D. Refrain from using local anesthesia

**Answer: D**

**Rationale:** Failure to use local anesthesia has been associated with increased pain during percutaneous imaging-guided breast procedures. Use of lovingkindness meditation, hypnosis, and buffering lidocaine with sodium bicarbonate all have been associated with lower pain during percutaneous imaging-guided breast procedures.

**References:**

Soo MSC, Jarosz JA, Wren AA et al. Imaging-guided core-needle breast biopsy: impact of meditation and music interventions on patient anxiety, pain and fatigue. *JACR* 2016; 13:526-534.

Vasan A, Baker JA, Shelby RA, Soo MSC. Impact of sodium bicarbonate-buffered lidocaine on patient pain during image-guided breast biopsy. *JACR* 2017; 14:1194-1201.

Lang EV, Berbaum KS, Faintuch S et al. Adjunctive self-hypnotic relaxation for outpatient medical procedures: a prospective randomized trial with women undergoing large core breast biopsy. *Pain* 2006; 126:155-164.

Satchithananda K, Rashika AMF, Ralleigh G, et al. An audit of pain/discomfort experienced during image-guided breast biopsy procedures. *Breast J* 2005; 11:398-402.

Hawkins AS, Yoo DC, Movson JS, Noto RB, Powers K, Baird GL. Administration of subcutaneous buffered lidocaine prior to breast lymphoscintigraphy reduces pain without decreasing lymph node visualization. *JNucl Med Technol* 2014; 42:260-264.