



Policy & Procedure: Administration of IV Contrast to Breast-feeding Patients

SUBJECT: Administration of IV Contrast to Breast-feeding Patients

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Written By: C. Parrao, RN

Approved by:

PURPOSE

This policy is intended to provide the most recent information regarding contrast agent administration as it relates to breast-feeding in order to assist the patient in making informed decisions prior to any procedure requiring IV contrast.

POLICY

Occasionally, iodinated or gadolinium-based contrast media is indicated for women who are breast-feeding. It is imperative the patient is made aware of the facts and risks involved in order to make an informed decision regarding the safety of the infant. According to the ACR Manual on Contrast Media (2015), iodinated and gadolinium-based contrast agents are almost fully excreted from the bloodstream within 24 hours of the time of administration. A very low lipid solubility makes for less than 1% of the administered maternal dose of iodinated contrast media to be excreted into the breast milk, and less than 0.04% for gadolinium. Absorption of contrast media by the infant is expected to be approximately 0.0004% to 0.01% of the maternal dose, which represents less than 1% of the recommended dose for an infant undergoing an imaging study. [1] Though none have been reported, the potential risks to the infant are direct toxicity and allergic reactions. Review of current, available literature suggests that unless otherwise indicated, a mother can safely continue to breast-feed after receiving such contrast agents.

If concern arises, the patient can be instructed to abstain from breast-feeding during the 24 hour period required for these agents to be fully excreted from the bloodstream. In addition, she can actively express and discard breast milk from both breasts during this time as an extra precautionary measure. In this situation, it would be appropriate to encourage the patient to pump an adequate supply of breast milk prior to the study in order to meet the infant's nutritional needs.

PROCEDURE: MRI

- 1 If breast-feeding patient is scheduled for an exam requiring gadolinium based contrast, MRI technologists are to perform the following functions prior to study:
 - a. Provide current information regarding contrast administration as it pertains to breast-feeding, addressing any patient concerns
 - i. Less than 0.04% of gadolinium-based contrast is excreted into breast milk
 - ii. Absorption of contrast media by the infant is approximately 0.0004% of the maternal dose
 - iii. Current literature suggests a mother can safely continue to breast-feed after receiving gadolinium-based contrast
 - b. Instruct mothers who express concern to pump and discard breast milk for 24 hours post-procedure.
 - c. Prior to appointment patient can be encouraged to pump enough breast milk to cover the 24 hour period necessary for complete contrast metabolization or she may choose to formula feed during that time.

PROCEDURE: CT

- 2 If breast-feeding patient is scheduled for an exam requiring iodinated contrast, CT technologists are to perform the following functions prior to study:
 - d. Provide current information regarding contrast administration as it pertains to breast-feeding, addressing any patient concerns
 - i. Less than 1% of iodinated contrast is excreted into breast milk
 - ii. Absorption of iodinated contrast media by the infant is approximately 0.01 of the maternal dose

- iii. Current literature suggests a mother can safely continue to breast-feed after receiving iodinated contrast
- e. Instruct mothers who express concern to pump and discard breast milk for 24 hours post-procedure.

Prior to appointment patient can be encouraged to pump enough breast milk to cover the 24 hour period necessary for complete contrast metabolization or she may choose to formula feed during that time

REFERENCES

1. American College of Radiology: Administration of Contrast Media to Breast-feeding Women
http://www.acr.org/~media/ACR/Documents/PDF/QualitySafety/Resources/Contrast%20Manual/2015_Contrast_Media.pdf/#page=103 Accessed September 2015
2. Trembley E, Therasse E, Thomassin N et al. Quality Initiatives Guidelines for use of medical imaging during pregnancy and lactation. *Radiographics* 2012; 32: 897-911.
3. Wang PI, Chong ST, Kielar AZ. Imaging of pregnant and lactating patients: Part 1. evidence-based review and recommendations. *AJR* 2012; 198:778-784.
4. <http://www.mrisafety.com/SafetyInfov.asp?SafetyInfoID=246> Accessed September 14, 2015.