

Poster Title: Medication use evaluation and appropriate use of allergy kits for procedural contrast media

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#### 1. Purpose:

Iodinated contrast media has been widely successful for diagnostic, procedural, and treatment purposes. Within recent years, the use of high-osmolarity agents has decreased in favor for low-osmolarity agents, resulting in decreased incidence of adverse events. Salina Regional Health Center uses premedication to prevent recurrent reactions in patient with a history of an allergic reaction. These allergy kits are distributed to patients with histories of iodine, shellfish, and contrast media. This project will aim to optimize patient's allergy assessment resulting in more appropriate patient selection to receive allergy kits.

#### 2. Methods:

This study has been submitted and approved by the Institutional Review Board. The electronic medical record system will be utilized to identify patients who have received allergy kits prior to radiology procedures from January 1, 2019 till August 31, 2019. The following data will be collected: patients sex, age, home town, reported allergies and adverse events, type of procedure, contrast media used, and if patient claimed to take allergy kit. If available, this study will review any additional data of adverse events in radiology documentation. The data will be reviewed to identify patients who were inappropriately treated with an allergy kits. Patients less than 18 years old, inpatients within the hospital, pregnant and incarcerated patients will be excluded.

#### 3. Results:

Most study patients reported allergies to iodine (44%) and iodinated contrast media (36%), followed by shellfish, crab, and crawfish (14%) and povidone-iodine (6%). Of the reported allergies, the most common reaction was hives and rash (40%) followed by reactions that have not been reported or unknown reactions (24%). A total of 71 kits were dispensed; however, 4% of those kits were dispensed to patients that did not receive a procedure with contrast.

#### 4. Conclusions:

The American College of Radiology, recommends pre-medication for allergic reactions to patient with prior reactions to contrast media. If only patients with contrast media allergies received kits (24 patients), this could have resulted in over \$1500 in savings to the patients and over 2 hours of pharmacist's time (assuming 5 minutes for each intervention). Providing a standardized approach to patient assessment, such as a decision tree, to select patients to receive allergy kits could have resulted

in a 52% reduction in kits dispensed. This study demonstrates that the development of a standardized approach to addressing contrast media allergies and need for allergy kits could improve patient care.