Document Number 7.5.4SOP

				7.5.4SOP
Title				
Patient Management - Treatment of Contrast Reactions				
Document Type		Revision Cod	de	Page Number
Standard Operating Procedure		А		1 of 5
PRESUMES PRACTITIONERS KNOWLEDGE OF: (title)	SPECIAL NOTES			
NA	ABSOLUTE CONTRAINDICATIONS: NA			
	EXPOSURE: NA			
	PROTECTIVE EQUIPMENT: NA			
	PATIENT/FAMILY EDUCATION MATERIALS: NA			
	EQUIPME	NT: NA		

#### 1.0 PURPOSE

**1.1** To provide guidelines for treatment of patients who experience an allergic reactions to contrast agents.

### 2.0 SCOPE

NA

### 3.0 RESPONSIBILITIES

NA

### 4.0 DEFINITIONS

NA

### 5.0 POLICY / PROCEDURE

### 5.1 Treatment of Contrast Reactions

- 5.1.1 Prompt recognition and treatment of contrast reactions may prevent an adverse event from becoming severe or even life threatening. The BWH guidelines for management of patients with contrast media related adverse reaction are summarized in supplements III and IV.
- 5.1.2 Any patient with any reaction should be carefully monitored for 20-30 minutes at least to ensure that worsening does not occur.

### 5.2 Equipment:

5.2.1 Oxygen, airway, sphygmomanometer and a stethoscope are kept in each room in which contrast media is utilized.

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Document Number

			7.3. <del>4</del> 30F
Title			
Patient Management - Treatment of Contrast Reactions			
Document Type	Revision Cod	de	Page Number
Standard Operating Procedure	А		2 of 5

- 5.2.2 "Crash carts" are kept in each section of the Radiology Department. These are maintained and inspected by the Radiology Department per BWH protocol.
- 5.2.3 Defibrillators are maintained throughout the department. These units are checked daily per BWH protocol. Defibrillators are serviced and checked by the Clinical Engineering per BWH standards
- 5.2.4 Contrast reaction kits are maintained in all contrast administration locations. These kits are secured in lock boxes/cabinets that are check daily during routine hours of operation. Documentation that kits are secured and available are maintained on the unit-emergency equipment check sheets. Central pharmacy services assure the contents of the kits are routinely checked for completeness.

#### 5.3 Initial Reaction

- 5.3.1 If a patient develops any reaction to the contrast media; the radiologist is immediately called to examine him/her. The technologist remains with the patient and calls a second technologist to assist with the patients care
  - 5.3.1.1 Assures patient
  - 5.3.1.2 Assists patient to comfortable position
  - 5.3.1.3 Oxygen
  - 5.3.1.4 Secures IV access
  - 5.3.1.5 Obtains vital signs and measures oxygen saturation
  - 5.3.1.6 Obtains emergency equipment
  - 5.3.1.7 Assists radiologist as directed

### 5.4 Delayed Reactions:

- 5.4.1 to intravascular iodinated contrast media are defined as reactions occurring 1 h to 1 week after contrast medium injection and have been reported to occur with an incidence of approximately 2%.
- 5.4.2 Patients at increased risk of late skin reactions are those with a history of previous contrast medium reaction and those on interleukin-2 treatment. Most late reactions are cutaneous, usually mild and resolve within a week. Management is symptomatic and similar to the management of other druginduced skin reactions.

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Document Number

			1.3.430F
Title			
Patient Management - Treatment of Contrast Reactions			
Document Type	Revision Co	de	Page Number
Standard Operating Procedure	А		3 of 5

5.4.3 Other reported delayed reactions are iodine "mumps" (salivary gland swelling) and a syndrome of acute polyartropathy, more frequent in patients with renal dysfunction

#### 5.5 Serious Reactions To Contrast Media

5.5.1 For serious reactions to contrast media (shock, convulsions, cardiac arrest, extreme breathing difficulty, arrhythmia, hypotension) that require immediate life saving measures (CPR) is initiated and a "CODE BLUE"/911 is called.

## 5.6 Management of Intercurrent Illness and Contrast Media Reactions in Tower CT (Inpatient) Scanner:

- 5.6.1 Life threatening events will be the responsibility of the BWH "Code Blue" team. Coverage will be provided 24 hours a day, seven days a week.
- 5.6.2 The process for management of intercurrent medical illness and/or contrast media reactions begins with the technologist's recognition of the problem. All technologists are trained to identify and grade the severity of these problems.

### 5.7 Life Threatening

5.7.1 When an event that may compromise airway function or threaten life is identified, the technologist will immediately signal a "Code Blue" calling the page operator at x26555.

### 5.7.2 Non-Life Threatening

- 5.7.2.1 The primary response team shall be provided by the Sectional Radiologists (or Radiology Resident on call at night). Hence, the initial alarm by the technologist triggers the notification of the radiologist
- 5.7.2.2 The role of the radiologist will be to assess the patient and supervise the management of event. The radiologist will document the event on the approved <a href="Department of Radiology Contrast Reaction Form">Department of Radiology Contrast Reaction Form</a>.

#### 5.8 Contrast Reaction Card

5.8.1 Patients are given a "Contrast Reaction Card" and are directed to keep this card with their other personal/healthcare identification information. Patients should be instructed to present this card to and inform the radiologist

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Document Number

			.0.7001
Title			
Patient Management - Treatment of Contrast Reactions			
Document Type	Revision Code	9	Page Number
Standard Operating Procedure	А		4 of 5

before undergoing any further x-ray of radiographic procedures in which "X-ray dye/contrast" is given.

### 5.9 Contrast Reaction Home Care Instructions

- 5.9.1 Outpatients are given Contrast Reaction Home Care Instructions
- 5.9.2 The Radiologist documents all contrast reactions on the <u>Contrast Reaction Note</u>. and the <u>Scanner Code Green Record</u>. The nature and treatment of the reaction is documented in the patient's chart and in both the body and impression of the Radiology exam report. The Radiologist will enter the patient's contrast allergy onto the LMR allergy field.
- **5.10** Recommended Treatment Plans

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Document Number

7.5.4SOP

Title			
Patient Management - Treatment of Contrast Reactions			
Document Type	Revision Co	de	Page Number
Standard Operating Procedure	А		5 of 5

### **REVISION SHEET**

DATE	REV	REVIEWED / REVISED / APPROVED	BY
6/20/2006	-	Initial Approval	Pharmacy & Therapeutics Comm.
9/18/2007	-	Annual Reviewed	OSC Comm.
4/28/2008	-	Annual Review	OSC Comm.
6/15/2009		Annual Review	OSC Comm.
7/14/2009	Α	Change to New Template	Duncan Phillips
7/16/2009	Α	Reviewed	E. Bozadjian
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