IV CONTRAST CT PROCEDURE

Summary of Changes

	NEW	Previous
BC Cancer	Includes revisions to the timeline required between blood draw and CT scan. Bloodwork now sufficient within 90 days (previously 30 days).	

1. Introduction

1.1. Focus

- To provide a procedure that ensures the safe care of patients receiving CT contrast injection within the Radiation Therapy program at BC Cancer-Kelowna.
- To outline the roles and responsibilities of Registered Nurses working to care for patients in this circumstance within an interdisciplinary team (Radiation Oncologists and Radiation Therapists).
- To provide relevant, key resources required in caring for patients receiving contrast medium.

Note: This document is based on the ACR Manual on Contrast Media

1.2. Health Organization Site Applicability

This procedure applies to BC Cancer- Kelowna and aligns with practice adopted by the Radiology Department at Kelowna General Hospital.

1.3. Practice Level

This procedure applies to Registered Nurses working in Radiation Therapy - Medical Day Care who have completed both the CT Contrast education module and practice components.

Registered Nurses working in the Medical Day Care area of the Radiation Therapy program MUST complete both the BC Cancer Radiation Therapy Nursing Education Program module Section 1C: Computed Tomography (CT) Simulation with Intravenous (IV) Contrast education as outlined, as well as the practice component before assuming responsibility for care of patients receiving CT Contrast.

1.4. Equipment and Supplies

- Patient gown
- Thermometer
- Sphygmomanometer
- IV insertion supplies
- Normal saline 500cc
- 20 Gauge IV catheters (rated to 325 PSI)
- MS-610NY Extension set
- Alaris PC Infusion pump
- Emergency Cart and key

2. Procedure

2.1. Steps and Rationale

48 hours prior to scheduled contrast injection, the Telephone Triage Registered Nurse will call a patient scheduled for CT Contrast at BC Cancer-Kelowna to:

I. Ensure Creatinine/ eGFR drawn within past 90 days. If bloodwork has not been drawn within the appropriate timeframe,
   a. If patient has lab requisition, direct to lab.
   b. If patient does not have a lab req, contact Radiation Oncologist for order and request that Ambulatory Care clerical staff FAX lab requisition to appropriate community/hospital lab.

II. Notify physician if eGFR less than 30 ml/min OR eGFR 30-44 in setting of elevated Creatinine.

III. Review instructions to:
   a. Drink one litre of fluid within six hours of contrast injection
   b. Avoid NSAIDs for 24 hour period pre- and post- administration of IV contrast (exception: ASA 81 mg od)
   c. Confirm whether previous mild/moderate reaction to IV contrast – contact Radiation Oncologist if previous history of reaction.
   d. Instruct patient to have driver available if risk of drowsiness/sedation.
   e. Answer any questions re: Patient Education Materials: “Intravenous Contrast Injection- Planning Your Radiation Treatments”.

On the day of CT Contrast the RT Medical Day Care Nurse will:

I. Prior to procedure:

a. Locate and/or print IV Contrast for CT Simulation pre-printed order (note: electronic signature eliminates need for written signature)
b. Review “IV Contrast for CT Simulation- Physician Screening” with the patient; note whether any variations from physician screening. If none, indicate N/A, sign, date, and enter into Aria.
c. Advise Radiation Oncologist of any variation in screening, including ingestion of NSAIDS within past 24 hours.
d. Record weight and baseline vital signs.
e. Liaise with CT Room staff re: preferred IV insertion site location.
f. Provide patient gown; assist with changing as necessary.
g. Insert 20 Gauge IV catheter rated for325PSI into antecubital space or large vein lower arm.
h. Attach MS-610NY Extension Set

i. Initiate infusion of 500ml normal saline T.K.V.O. prior to simulation.
j. Administer pre-meds as ordered.

II. During procedure:

***Medical Day Care RN to be immediately available to CT Simulation staff in case of adverse reaction.**

III. Post-procedure:

a. Monitor patient 30 min post-injection of CT Contrast or as directed by physician.
b. Perform baseline vital signs on return to Patient Review area & repeat at 30 minutes post- injection of CT Contrast in case of delayed reaction.
c. Remove IV if stable.
d. Provide Discharge Instructions as follows:
   - Advise patient to drink an additional litre of fluid within next six hours.
   - Avoid NSAIDs x 24 hours (exception: low dose ASA).
   - Ensure safe to drive if unaccompanied and medications administered.

IV. Following the procedure:

a. Restock Emergency cart prn; ensure portable suction plugged in.
b. Complete documentation and communication with other care providers as necessary.

2.2. Site Specific Practices for Adverse Events

I. Allergic reaction/Anaphylaxis

a. BC Cancer Nursing Practice Reference- R-40: Registered Nurse initiated Activities
   i. Minor Drug Reaction Decision Support Tool
   ii. Anaphylaxis Decision Support Tool
b. See https://www.acr.org/Clinical-Resources/Contrast-Manual

- **Table 1:** Categories of Acute reactions (p.100-101)
- **Table 3:** Management of Acute Reactions to Contrast Media in Adults (p.111-120).

II. Extravasation

a. Management of Extravasation of Contrast Media

2.3. Documentation

I. Complete Nursing documentation in the patients chart and ARIA as per BC Cancer Nursing Practice Reference D-75: Documentation
II. Review of Physician Screening will be signed and entered into ARIA.
III. Vital signs and weight will be documented in ARIA.

2.4. Patient/Client Education

I. Intravenous Contrast Injection- Planning Your Radiation Treatments

3. Related Documents and References

3.1. Related Documents

1. BC Cancer Nursing Practice Reference- R-40: Registered Nurse initiated Activities
2. https://www.acr.org/Clinical-Resources/Contrast-Manual
3. https://www.acr.org/Clinical-Resources/Contrast-Manual
4. Management of Extravasation of Contrast Media
5. BC Cancer Nursing Practice Reference D-75: Documentation

3.2. References

1. American College of Radiology Manual on Contrast Media- https://www.acr.org/Clinical-Resources/Contrast-Manual

2. BC Cancer Prevention and Management of Extravasation of Contrast Media- H:\EVERYONE\Assessment Module\IV Contrast\Prevention and Management of Extravasation of Contrast Media.doc

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