

File No: 4010-36

# Intravenous Injection of Contrast Media

# COMPETENCY PROFILE



Prepared by  
The Ontario Association of Medical Radiation Technologists  
P.O. Box 1054  
Brantford, ON N3T 5S7  
Telephone: 1-800-387-4674 or (519) 753-6037 Fax: (519) 753-6408  
[www.oamrt.on.ca](http://www.oamrt.on.ca)



## **Ontario Association of Medical Radiation Technologists**

# **Competency Profile For Intravenous Injection of Contrast Media**

### **Assumptions**

Assumed prerequisite knowledge, skills and professional attributes:

The Technologist

1. Has completed an accredited Medical Radiation Technology program and is certified to practice in Canada
2. Is employed in a Diagnostic Imaging or Radiation Therapy department
3. Recognizes patients as unique individuals, treating them with dignity and respect
4. Fosters inter-professional collaboration with other allied healthcare professionals in providing patient services
5. Practices according to the provincial legislation and regulations governing the profession of Medical Radiation Technology
6. Exercises knowledge, skill, and judgment at all times
7. Carries personal Professional Liability Insurance (PLI)

## Required Competencies

The following competencies must be met to qualify for the Enhanced Practice Certificate in Intravenous Injection of Contrast Media:

<b>A1 Demonstrates Theoretical Knowledge</b>	
A1.1	Recognizes commonly found pharmaceuticals and supplies found in an emergency drug kit
A1.2	Recognizes contrast media in use within the facility
A1.3	Demonstrates an understanding of the pharmacodynamics of contrast media being used
A1.4	Demonstrates an understanding of venous anatomy and physiology
A1.5	Demonstrates an understanding of provincial privacy legislation and regulations for dissemination of medical information

<b>B1 Performs Procedure</b>	
B1.1	Performs tasks in an organized and confident manner
B1.2	Ensures organization of the emergency response cart
B1.3	Practices universal/standard precautions
B1.4	Practices aseptic technique
B1.5	Ensures securing of relevant diagnostic and/or therapeutic lines and tubes is achieved
B1.6	Practices effective use and monitoring of associated medical equipment
B1.7	Selects and prepares the appropriate contrast media for the procedure
B1.8	Prepares the injection site, performs venipuncture and administers contrast media into the appropriate vein
B1.9	Removes intravenous needles from the vein safely and effectively
B1.10	Disposes of sharps and contaminated materials in a safe manner according to safety legislation and infection control guidelines

B1.11	Performs assessment and interpretation of vital signs
B1.12	Initiates emergency services if required
B1.13	Assists in emergency intervention if required
B1.14	Performs Cardio-Pulmonary Resuscitation (CPR) if required
B1.15	Composes and documents required information

## **C1 Provides Exemplary Patient Care**

C1.1	Adapts care plan according to the patient's unique safety needs
C1.2	Responds appropriately to the patient's questions about the procedure
C1.3	Demonstrates reassuring verbal and non verbal actions
C1.4	Assesses the patient's physical and emotional condition prior to, during and after the procedure
C1.5	Acknowledges and responds to the patient's emotional and physical needs prior to, during and after the procedure
C1.6	Obtains information from the patient to determine if there are any contraindications to the contrast media
C1.7	Informs the patient regarding the possible effects of contrast media and other pharmaceuticals used
C1.8	Obtains informed consent from the patient
C1.9	Recognizes and responds to changes in the patient's condition following the administration of contrast media and other pharmaceuticals
C1.10	Recognizes and responds to the need for immediate medical attention
C1.11	Instructs the patient on post procedural care

## **Recommended Guidelines**

The following guidelines have been established to supplement the core competencies as laid out in this profile. These guidelines should be followed to ensure continued competence of the practitioner and are considered best practices regarding intravenous contrast injection.

1. The practitioner is able to successfully complete a minimum of 20 observed intravenous injections within a 30 day period (where possible)
2. The practitioner is accountable to exercise the appropriate knowledge, skills and judgment as required by their regulatory body
3. The employer is responsible for the actions of the practitioner under the Regulated Health Professions Act (RHPA) in the province of Ontario
4. An annual competency assessment is completed by the facility
5. The practitioner should complete a Standard First Aid course
6. The practitioner should recertify their CPR training on an annual basis

Student: \_\_\_\_\_

Date: \_\_\_\_\_

### Recommended Competency Check List for Clinical Performance

The following performance indicators are suggested guidelines and may be modified according to individual facilities needs.

The Technologist should complete the following list to the satisfaction of the observer to meet requirements for clinical competency. The observer may be a Radiologist, Registered Nurse or a Technologist (that practices venipuncture) within your facility.

The following criteria must ALL be completed and followed in the order in which they are presented. Failure to do so will result in a failed attempt.

Criteria	Simulated	Human
1. Collect all equipment including sharps container		
2. Wash hands		
3. Don gloves		
4. Apply tourniquet		
5. Identify vein for cannulization		
6. Swab vein using appropriate technique		
7. Open needle device and check bevel		
8. Insert needle in vein using aseptic technique		
9. Check for flash back		
10. Advance catheter into vein		
11. Release tourniquet		
12. Attach syringe/IV or heparin lock as appropriate		
13. Secure in place		
14. Ensure patent vein and flow		
15. Dispose of equipment appropriately		
16. Wash hands		
<b>Observer Signature</b>		

Circle Attempt: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Comments: