

The Valley Hospital School of Radiography

Competency-Based Clinical Education Manual

2022 - 2024

1. **INTRODUCTION**

The Valley Hospital School of Radiography's Competency Based Clinical Education is a progressive approach to the clinical development of a student. Students begin this process with didactic and laboratory instruction. Students progress to the participatory stage of the system, after observing groups of examinations.

During the participatory stage, students gradually assume a more active role in their clinical responsibilities. They perform simulations, demonstrations and competencies under the direct supervision of the Clinical Preceptor. Continual evaluations assure progressive clinical proficiency. The final stage involves Terminal Evaluations and Patient Care simulations. These evaluations allow the student to demonstrate their basic entry-level clinical skills.

In addition, students are graded on patient care skills, ethical practice, communication skills, initiative, professional attire, dependability, radiation protection and safety, image evals and maintenance of clinical records.

Students should strive to broaden their scope of clinical participation under the guidelines described herein. Students at TVH have always prided themselves in the quality of their academic preparation, level of professional development and enriched clinical experience.

2. **GUIDELINES FOR CLINICAL COMPETENCY REQUIREMENTS**

The ARRT has listed a total of seventy (72) radiographic and fluoroscopic procedures into eleven (11) categories.

The ARRT classifies these procedures into thirty-six (36) "**Mandatory**" procedures and (34) "**Elective**" procedures.

The ARRT and the NJ Board of Examiners require a student to demonstrate competency in all 36 "Mandatory" procedures.

A total of ten (10) imaging procedures may be simulated. Imaging procedures eligible for simulation are noted on the performance record.

The ARRT and Board require students to demonstrate competency in 15 out of the 34 "Elective" procedures. Students will be required to perform 36 mandatory evaluations as Initial Clinical Competency Evaluations (ICCE), six (6) as Continual Clinical Competency Evaluations (CCCE) and five (5) as Terminal Competency Evaluations (TCCE).

Students must select one elective procedure from the head section and two procedures from the fluoroscopy section. In addition to the radiographic procedures, the student will complete the following mandatory Patient Care Simulations: CPR, Vital Signs (blood pressure, pulse, respiration, temperature, pulse oximetry), Sterile & Aseptic Technique, Venipuncture, Assisted transfer of the Patient (slider board, mechanical lift, gait belt) and Care of patient medical equipment (e.g., Oxygen tank, IV tubing, Chest tubing).

A student will maintain a progressive approach to his/her clinical development. Evaluations are completed patients of different age groups and levels of difficulty as the student's confidence and competence increases.

Demonstration of competence must include:

Patient identity verification	Examination order verification
Patient assessment	Room preparation
Patient management	Equipment operation
Technique selection	Patient positioning
Radiation safety	Image processing
Image evaluation	

3. LEVELS OF PATIENT DIFFICULTY

- ❑ **Patient A:** Ambulatory - cooperative adult; Stretcher Adult Patient - able to move onto table with minimal assistance; 13-17 year old Patient - is cooperative, needs minimal assistance
- ❑ **Patient B:** Wheelchair/Stretcher/ Adult Patient - unable to cooperate; needs maximum support; 13-17 year old Patient - unable to cooperate; needs maximum support Child: 6 years - 12 years, Trauma patient, portable exam
- ❑ **Patient C:** Comatose Patient - any age, ICU/ CCU Patient - any age; Multiple Trauma Patient - any age; Pediatric - Infants – 6 years, portable exam
- ❑ **Patient D:** Geriatric Patient – Physically or Cognitively impaired as a result of aging

Trauma is considered a serious injury or shock to the body. Modification may include variations in positioning, minimal movement of the body part, etc.

4. LEVELS OF STUDENT CLINICAL SUPERVISION:

Prior to didactic and laboratory instruction, students are only permitted to observe a NJ licensed Radiographer perform that examination. Students must progress from the point of observation to participation. Prior to competency, students must work under direct clinical supervision of a NJ licensed radiographer. The following constitutes

- ❑ **Direct Supervision:** the radiographer will
 - a. Evaluate the request for examination in relation to the student's knowledge and competency.
 - b. Evaluate the condition of the patient in relation to the student's knowledge and competency.
 - c. Be present in the room with the student to observe and supervise the examination.
 - d. Evaluate and approve all resultant images and/or data.
- ❑ **Indirect Supervision:** the radiographer will
 - a. Evaluate the request for examination in relation to the student's knowledge and competency.
 - b. Evaluate the condition of the patient in relation to the student's knowledge and competency.
 - c. Be immediately available in the room or adjacent to the room where the student is performing the procedure. (Based on this parameter, a student cannot be assigned to a radiographic or fluoroscopic room or a surgical or mobile rotation unless a licensed diagnostic radiologic technologist is present either in that room or in an area that is adjacent to the room, such as, an adjacent room, adjacent room separated by a hallway or the hallway outside of the room where the procedure is being performed.)
 - d. Evaluate and approve all resultant images and/or data.

5. TYPES OF CLINICAL COMPETENCY EVALUATIONS

- ❑ There are three [3] classifications of clinical competency evaluations:
 - a. initials clinical competency evaluation [ICCE]
 - b. continual clinical competency evaluation [CCCE]

- c. terminal clinical competency evaluation [TCCE]

6. **INITIAL CLINICAL COMPETENCY EVALUATIONS**

The Competency Based Clinical Education System for the Radiography Program at The Valley Hospital includes:

- ❑ Students will receive didactic instruction for each radiographic procedure.
- ❑ Students will practice and simulate radiographic procedures in the energized laboratory at the clinical site.
- ❑ Students will continue to simulate procedures during weekly clinical classes.
- ❑ Successful simulations/patient demonstrations will be recorded on the student's Performance Record form.
- ❑ Prior to requesting an Initial Clinical Competency Evaluation, students shall complete the following:
 - a. Documented didactic proficiency
 - b. Documented laboratory proficiency
 - c. Documented patient demonstrations (demos) under direct supervision of a Registered Radiographer.
- ❑ Successful completion of the previous steps (1 through 4) will enable the student to request an Initial Clinical Competency Evaluation (ICCE).
- ❑ Students must demonstrate confidence and ease when performing the procedure for an Initial Clinical Competency Evaluation. The student must perform all Competency Evaluations independently.
- ❑ Once students have mastered competency in a given procedure, they may perform this examination under indirect supervision.
- ❑ Regardless of the student's level of competency, unsatisfactory radiographs **MUST** be repeated only under direct supervision of a NJ Licensed Radiographer & **documented on the student's REPEAT SHEET to assure compliance.**
- ❑ REPEATING UNSATISFACTORY RADIOGRAPHS WITHOUT A LICENSED RADIOGRAPHER IS A SERIOUS VIOLATION OF STATE, NATIONAL AND PROGRAM REGULATIONS. FAILURE TO ADHERE TO THIS POLICY WILL RESULT IN SUSPENSION AND /OR DISMISSAL FROM THE PROGRAM.
- ❑ All operating room, portable and special procedures will require direct supervision of a licensed radiographer. Specialty area rotations (mammography, CT, MRI, Cardiac Cath Lab, Interventional Lab and radiation therapy) will also require direct supervision.

Remediation is an essential part of the CBCE standard provided by the State of New Jersey. The following is the program's remediation process.

- a. document the unsatisfactory performance.
- b. identify areas where improvement is needed.
- c. direct the student to follow the clinical education flow chart prior to requesting a repeat evaluation.

Students must complete a defined number of Image Evaluations presentations per semester. Please refer to the course syllabus for the specific number required.

- ❑ ALL ICCE, CCCE AND ELECTIVE EVALUATIONS REQUIRED PER CATEGORY MUST BE COMPLETE PRIOR TO BEGINNING TERMINAL COMPETENCIES. Students may exceed the minimum number of elective competencies in any given semester.
- ❑ After achieving an initial clinical competency for a procedure, if a student fails to maintain an acceptable level of performance, the clinical preceptor will:

- a. document the unsatisfactory performance.
- b. identify areas where improvement is needed.
- c. direct the student to follow the clinical education flow chart prior to requesting a repeat evaluation.

The Radiography Program's Clinical Competency Requirements

In order to be awarded a certificate of completion from The Valley Hospital's School of Radiography, a student must complete all didactic / clinical requirements.

Semester	GPCS	ICCE	CCCE	TCCE	Elective	Totals
Fall		1				1
Winter		2				2
Spring		6				6
Summer	10	9			5	24
Fall		6	2		5	13
Spring		6	2		5	13
Summer		6	2	5		13
Totals	10	36 (M)	6	5	15 (E)	72

- GPCS – General Patient Care Simulations
- ICCEs – Initial Clinical Competency Evaluations
- CCCEs – Continual Clinical Competency Evaluations
- TCCEs – Terminal Clinical Competency Evaluations

In order to comply with the ARRT's and the NJ Board of Examiner's competency requirements, the Radiography Program mandates successful completion of the following:

- 36 – ICCE
- 15 – ECCE – (1) from each category
- 6 – CCCE – (1) CCCE from six different categories
- 5 – TCCE – (1) from five different categories
- 10 – GPCS – General Patient Care Simulations
- 72 Total

7. CONTINUAL CLINICAL COMPETENCY EVALUATIONS

- Starting with Clinical V, a student may perform continual clinical competency evaluations (CCCE). The specific number of evaluations per semester will be listed in each clinical course syllabus.
- Continual Competency evaluations will be performed in 6 different categories.
- CCCEs will be performed on previously evaluated procedures with a progressive level of patient or procedure difficulty.
- CCCEs evaluation forms will be utilized to document student performance.
- An unsuccessful CCCE will require the student to follow the clinical education flow chart in order to be re-evaluated.
- Successful completion of the CCCEs will be noted on the Clinical Performance Record form.

8. TERMINAL CLINICAL COMPETENCY EVALUATIONS

- Terminal Clinical Competency Evaluations (TCCE) may begin in Clinical VIII. TCCEs may be attempted after the student has successfully completed all Initial, Continual and Elective requirements per category.
- Terminal Clinical Competency Evaluation forms will be utilized to document the student's performance.

- ❑ The requirements for the terminal competencies are outlined in the Clinical VIII course syllabus. TCCEs must be performed in five different categories.
- ❑ An unsuccessful TCCE will require the student to follow the clinical education flow chart in order to be re-evaluated.
- ❑ Terminal Clinical Competency Evaluations can only be performed 3 months prior to graduation.

Terminal Clinical Competency Evaluations may NOT be simulated.

- ❑ Upon successful completion of the required terminal evaluations, as well as all didactic / clinical requirements, the student will receive notification that he/she has successfully met all requirements for Competency Based Clinical Education. This will permit the student to be a candidate for graduation from The Valley Hospital's Radiography Program.

GLOSSARY OF CLINICAL COMPETENCY TERMS

Clinical Education - The portion of the educational program conducted in a health care facility that provides the opportunity for students to translate theoretical and practical knowledge into cognitive, psychomotor and affective skills, necessary for patient care.

Clinical Patient Demonstration – Upon successful completion of didactic and laboratory evaluations, the student will perform a minimum of two (2) clinical patient demonstrations prior to requesting a competency evaluation. Patient demonstrations must be performed under direct supervision of a licensed radiographer. For exams that are infrequently seen, students may simulate and perform one (1) patient demo. The clinical faculty will evaluate when procedure numbers warrant one patient demonstration. Patient demonstrations will be documented on the performance sheet.

Competency - Identified radiographic knowledge and skills a student must master to successfully complete program requirements.

Competent - The student's ability to successfully demonstrate patient care skills, produce a diagnostic image by performing a series of designated radiographic positions / projections with indirect supervision and assume those duties and responsibilities according to course and clinical objectives.

Continual Clinical Competency Evaluations (CCCEs) - Performed to assess continuing competence at a more difficult patient level, after a student has completed an initial clinical competency evaluation.

Criteria for Simulated Competency Evaluations and Clinical Competency Evaluations –

All simulated competency evaluations and clinical competency evaluations must include the minimum evaluation criteria:

1. evaluation of requisition and patient assessment
2. physical facilities readiness
3. patient care and management
4. equipment operation and technique selection
5. positioning skills
6. radiation protection for patient, self and others
7. evaluation of the resulting images for proper
 - a. anatomical parts
 - b. anatomical alignment
 - c. radiographic techniques
 - d. image identification
 - e. radiation protection

Documented Laboratory Proficiency – A laboratory evaluation that is performed under simulated conditions and did not include all criteria for a simulated competency evaluation but does include the criteria necessary to determine that a student is proficient to position patients for that procedure.

Elective Clinical Competency Evaluations - Thirty-four elective procedures are listed from which the student chooses a minimum of fifteen to perform.

Initial Clinical Competency Evaluation – (ICCE) - A procedure by which a student's clinical performance is evaluated according to the program's standards. It is used to measure knowledge, psychomotor skills, and the affective behavior required for an entry-level radiographer.

Mandatory Clinical Competency Evaluations – Thirty-six mandatory procedures must be completed.

Remediation- Identified as a part of the evaluation process that requires the student and instructor to form a plan of action to address areas of weakness. Remediation will follow according to the competency based clinical education flow-chart. The clinical preceptor will:

- a. document the unsatisfactory performance.
- b. identify areas where improvement is needed.
- c. direct the student to follow the clinical education flow chart prior to requesting a repeat evaluation.

Simulated Competency – Any mandatory or elective procedure that is not performed on a patient. All simulated competencies must include the minimum evaluation criteria. Simulated mandatory or elective competencies are only considered for infrequent procedures (6) months prior to graduation and if passed, DIRECT SUPERVISION must be maintained until competency is demonstrated on a patient.

Terminal Clinical Competency Evaluations (TCCs) – are performed when the mandatory and elective clinical evaluations are complete in a category. They are the final evaluations documenting the student's achievement of basic entry level radiographic skills.

All policies and course requirements are subject to revision on a semester by semester basis. Students will be notified of any revision(s) at the beginning of the semester in which the policy or requirement(s) is/are to be implemented during the first meeting of the appropriate radiography class.

MANUAL Reviewed / revised 6/2017, revised 5/2019, 6/2021/ reviewed 2022