

**Indiana State Department of Health
Health Care Quality and Regulatory Services
Division of Acute Care**

Cardiographic Technicians and Cardiovascular Technologist Scope of Practice

ISDH HCQRS: Program Advisory Letter

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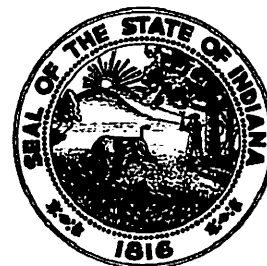
Effective Date: January 6, 2012

Created: December 15, 2011

Cancels: None

Reviewed: n/a

Revised: n/a



ADVISORY SUMMARY

- **Effective Date: January 6, 2012**
- Cardiographic Technicians, unless otherwise licensed to do so, may not administer medications.
- Sonographers, as certified by one or more certification bodies, may not administer medications unless otherwise licensed to do so.
- Registered Cardiovascular Invasive Specialist (RCIS) may administer medications under the direction of a qualified physician during procedures performed in the Cardiac Catheterization Laboratory/Invasive Cardiovascular Laboratory.
- Facilities should have in place, properly approved credentialing policies and procedures indicating that the RCIS is permitted to administer medication under the direction of a qualified physician.

Background:

The Indiana State Department of Health (ISDH), Acute Care Division has been made aware that some Indiana Health Care Facilities employee staff who are credentialed as Cardiographic Technicians (CCT) and are allowing the staff member to administer medications under physician supervision. The result of this activity has been the issuance of survey citations to those facilities engaged in this practice. The Indiana State Department of Health underwent a review and

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analysis of the role of the Cardiographic Technicians (CCT) in order to determine if the citations were appropriate. The analysis and conclusions (resultant policy statement) are as follows:

Analysis:

NATIONALLY RECOGNIZED POLICY STATEMENTS

The Alliance for Cardiovascular Professionals (ACVP) states:

“The position of Cardiographic Technician is an entry level position, involving technicians working in EKG, stress testing or Holter monitoring. Technicians working in EKG are trained on the job, as a rule. Training usually is conducted by an EKG supervisor or a cardiologist and lasts no more than 4 to 6 weeks for the basic “resting” EKG. Training for specialized EKG testing, stress testing and Holter monitoring is much more extensive and involves in-depth study of cardiovascular anatomy and physiology. These programs can involve 18 months to 2 years study.

There are no licensing requirements for EKG technicians and credentialing is voluntary at this time. The credential awarded to a Cardiographic Technician, upon successful completion of the certified cardiographic examination, is that of Certified Cardiographic Technician.”

Additionally, the Alliance for Cardiovascular Professionals delineates the following roles and related scope of practice:

“Non-Invasive Cardiovascular Technologist

The Cardiovascular Technologist specializing in non-invasive cardiovascular technology is a health care professional who, through the use of specific high technology equipment and at the direction or prescription of a qualified physician, performs procedures on patients leading to the diagnoses of congenital heart disease, acquired heart disease, coronary artery disease, and peripheral vascular disease.

The technologist is proficient in the use of physiologic analytical equipment during diagnostic procedures. The non-invasive cardiovascular technologist is trained in advanced life support techniques as the patient population is often at high risk for cardiopulmonary arrest.

The non-invasive cardiovascular technologist performs diagnostic procedures involving patients in the non-invasive cardiovascular laboratory as well as coronary care and medical / surgical intensive care unit environments. The technologist may perform procedures in hospitals, specialized clinics and private offices. The non-invasive

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cardiovascular technologist is a highly specialized diagnostician of the various presentations of cardiac and cardiovascular disease.

The credential awarded to the non-invasive cardiovascular technologist upon completion of the non-invasive registry examination is that of Registered Cardiac Sonographer (RCS).

Invasive Cardiovascular Technologist

The invasive cardiovascular technologist is a medical professional who is highly skilled and trained in the applied science of invasive cardiovascular technology with experience in all aspects of diagnostic and interventional cardiovascular procedures and who has demonstrated proficiency and knowledge through a credentialing examination.

Academic training in the science of invasive cardiovascular technology includes: a Bachelor of Science degree, an associate of science degree awarded from a two-year course of study, or a certificate of completion awarded from a hospital, trade, or technical cardiovascular educational program. Qualifying programs have been accredited by the Commission on the Accreditation of Allied Health Education Programs (CAAHEP) or an equivalently accredited allied health or science degree with practical experience. Confirmation of educational preparation, knowledge, and competence is evidenced by the achievement of professional credentials in invasive technology.

The invasive cardiovascular technologist position generally requires working in a cardiac catheterization laboratory or special procedures laboratory. The cardiac cath lab provides professional cardiovascular care to the patient undergoing cardiac evaluation, diagnosis, and treatment for cardiovascular disease known or suspected or for cardiac anomalies.

In this setting, the procedures require either puncture or incision of an artery or vein which is used to thread a thin catheter that will traverse the vessel and position itself in the heart or adjoining arteries or veins. This position requires high levels of understanding of cardiovascular anatomy and physiology, pharmacology, radiation, physics and safety, as well as radiological imaging and positioning. In some instances, an understanding of Intra-Aortic Balloon pumping is necessary depending on the acuity of the patient and the complexity of procedures performed in this setting.

Accuracy in waveform and hemodynamic analysis and measurement, preparing and

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administering medications, acquiring a viable image and proper sterile procedure are all prerequisites for a person in this position.

The credential awarded to the invasive cardiovascular technologist, upon completion of the invasive registry examination, is that of Registered Cardiovascular Invasive Specialist (RCIS).”

Similarly to the Alliance for Cardiovascular Professionals, the American Registry for Diagnostic Medical Sonographers (ARDMS) credentials individuals as a Registered Diagnostic Medical Sonographer (RDMS), Registered Diagnostic Cardiac Sonographer (RDCS) and Registered Vascular Technologists (RVT). For all three credentialed positions, the American Registry for Diagnostic Medical Sonographers definitions refer to non-invasive, non-medication administered testing. The American Registry for Diagnostic Medical Sonographers does not credential invasive cardiovascular technologists or specialists.

The Society of Invasive Cardiovascular Professionals (SICP) recognizes the Registered Cardiovascular Invasive Specialist credential as does the American College of Cardiology (ACC) and the Society of Cardiac Angiography and Interventions (SCAI). In addition, the Society of Invasive Cardiovascular Professionals maintains a policy statement that it is the obligation of the employer to “validate the employee credentials, preparation and knowledge base...” Within the scope of practice, as defined by the Society of Invasive Cardiovascular Professionals, the Registered Cardiovascular Invasive Specialist credentialed staff “administers medication drug under the direction of a qualified physician.”

The Acute Care Division recognizes that in certain situations; and with the appropriate education and/or training, some employees and medical staff approved allied health professionals may administer medication as part of a procedure under the direction of a physician when a nationally recognized body has indicated the practice is within the scope of practice.

Summation:

1. The Alliance for Cardiovascular Professionals defines the Cardiographic Technician as an entry level position for which certification (CCT) is voluntary.
2. The Alliance for Cardiovascular Professionals recognizes non-invasive staff as Registered Cardiac Sonographers (RCS).
3. The American Registry for Diagnostic Medical Sonographers recognizes non-invasive staff as Registered Diagnostic Medical Sonographers (Registered Diagnostic Cardiac Sonographers; and Registered Vascular Technologists).

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4. The Alliance for Cardiovascular Professionals, Society of Invasive Cardiovascular Professionals, American College of Cardiology and Society of Cardiac Angiography and Interventions recognize invasive staff as Registered Cardiovascular Invasive Specialists (RCIS).

5. Only the Registered Cardiovascular Invasive Specialists (RCIS) credential presents a scope of practice permitting the administration of medication and further qualifies that the medication must be administered under the direction of a qualified physician.

Policy:

1. Cardiographic Technicians, unless otherwise licensed to do so, may not administer medications.
2. Sonographers, as certified by one or more certification bodies, may not administer medications unless otherwise licensed to do so.
3. Registered Cardiovascular Invasive Specialist (RCIS) may administer medications under the direction of a qualified physician during procedures performed in the Cardiac Catheterization Laboratory/Invasive Cardiovascular Laboratory.
4. Facilities should have in place, properly approved credentialing (certification/registration) policies and procedures indicating that the RCIS is permitted to administer medication under the direction of a qualified physician and the means and methods upon which the facility documents the validation of the employee credentials, preparation and knowledge base.

Questions:

Questions about this program advisory letter may be addressed to Ann Hamel, Program Director, (317) 233-7487, email: ahamel@isdh.in.gov or Randy Snyder, Division Director, (317) 233-1286, email: rsnyder1@isdh.in.gov.

Approved by:

/s/

Terry Whitson, Assistant Commissioner
Health Care Quality and Regulatory Services Commission