

A. CARDIAC CATHETERIZATION EQUIPMENT

Introduction

G.S. 131E-176(2f) defines cardiac catheterization equipment, as “equipment used to provide cardiac catheterization services.” G.S. 131E-176(2g) defines “cardiac catheterization services” as “those procedures, excluding pulmonary angiography procedures, in which a catheter is introduced into a vein or artery and threaded through the circulatory system into the heart specifically to diagnose abnormalities in the motion, contraction, and blood flow of the moving heart or to perform surgical therapeutic interventions to restore, repair, or reconstruct the coronary blood vessels of the heart.” Tables 17A-1 and 17A-2 show the number of cardiac catheterization procedures performed during the reporting year.

Assumptions of the Methodology

1. Cardiac catheterization equipment service areas are the Acute Care Bed Service Areas defined in Chapter 5 and shown in Figure 5.1.
2. The capacity of a unit of cardiac catheterization equipment is defined as 1,500 diagnostic-equivalent procedures per year, with the trigger of need at 80% of capacity. One interventional cardiac catheterization procedure is valued at 1.75 diagnostic-equivalent procedures. One cardiac catheterization procedure performed on a patient age 14 or younger is valued at two diagnostic-equivalent procedures. All other procedures are valued at one diagnostic-equivalent procedure.
3. Cardiac catheterization equipment and services shall only be approved for development on hospital sites (i.e., in facilities that are on a hospital’s license) or in a licensed ambulatory surgical facility (excluding endoscopy-only facilities).

Application of the Methodology

Fixed Equipment

Methodology 1 (Table 17A-3)

The need determination methodology in service areas with at least one unit of equipment in the current inventory is as follows:

- Step 1: Determine the planning inventory (*Column F*) for each facility with fixed cardiac catheterization equipment, to include the total of: existing equipment in operation (*Column C*), approved equipment for which a certificate of need was issued but is under development (*Column D*), and need determinations for which no certificate of need has yet been issued (*Columns E*).
- Step 2: Determine the number of adult and pediatric diagnostic and interventional procedures performed at each facility during the current reporting year (*Table A-1*). If mobile procedures are provided in a county that is part of more than one service area, divide the procedures equally between the service areas.
- Step 3: Calculate the total weighted (diagnostic-equivalent) cardiac catheterization procedures for each facility by multiplying adult diagnostic procedures by 1.0, interventional procedures by 1.75, and pediatric procedures performed on patients age 14 or younger by 2.00 (*Column H*).
- Step 4: For each facility, determine the number of units of fixed cardiac catheterization equipment required for the number of procedures performed by dividing the number of weighted (diagnostic-equivalent) cardiac catheterization procedures performed at each facility by 1,200

procedures (i.e., 80% of the 1,500-procedure capacity). Round the result to the nearest hundredth (*Column I*).

Step 5: Sum the number of units of fixed cardiac catheterization equipment required for all facilities in the same service area as calculated in Step 4 (*Column I*). Round to the nearest whole number (*Column J*).

Step 6: In each service area, subtract the total planning inventory (*Column F*) from the number of units of fixed cardiac catheterization equipment required (*Column I*). The difference is the number of additional units of fixed cardiac catheterization equipment needed (*Column J*).

Methodology 2:

For cardiac catheterization equipment in a service area that does not have a unit of fixed cardiac catheterization equipment, a need determination exists for one unit of shared fixed cardiac catheterization equipment (i.e., fixed equipment that is used to perform both cardiac catheterization procedures and angiography procedures) when:

1. The number of cardiac catheterization procedures as defined in 10A NCAC 14C .1601(5) performed at any mobile site in the service area exceeds 240 (300 procedures x 80%) procedures per year for each eight hours per week the mobile equipment is operated at that site during the current reporting year (*Table 17A-2*); and
2. No other fixed or mobile cardiac catheterization service is provided in the same service area.

Mobile Equipment

The SMFP does not have a methodology to project need for additional mobile cardiac catheterization equipment. A summer petition is required to place a need in the upcoming SMFP. If the need determination is approved, any person may apply for a certificate of need to acquire the mobile cardiac catheterization equipment.