Surgery
Cardiovascular System
Heart and Pericardium
Cardiac Valves
Aortic Valve

● 33390  Valvuloplasty, aortic valve, open, with cardiopulmonary bypass; simple (ie, valvotomy, debridement, debulking, and/or simple commissural resuspension)

● 33391  complex (eg, leaflet extension, leaflet resection, leaflet reconstruction, or annuloplasty)

Clinical Example (33390)
A 3-year-old male born with congenital aortic stenosis presents with recurrent valvular aortic stenosis and mild insufficiency following balloon valvuloplasty of his bicuspid aortic valve as a neonate. The family reports decreased exercise tolerance, with shortness of breath and easy fatigability. Electrocardiogram (EKG) shows left ventricular hypertrophy. Echocardiogram documents a 60 mmHg gradient across the aortic valve, with residual fusion of the commissure between the left and noncoronary cusps and dysplastic thickening of the leaflets beneath this area.

Description of Procedure (33390)
A sternotomy is performed, the thymus is divided or resected, the pericardium is opened and suspended, and appropriate purse string sutures are heparinized and placed for cannulation. The patient is heparinized and arterial and venous cannulas are inserted for cardiopulmonary bypass (CPB), which is initiated after adequate anticoagulation is ensured. The left atrial vent is inserted, and cooling is initiated as appropriate. The cardioplegia delivery catheter is placed, the aorta is cross-clamped, and cardioplegia is administered. An appropriate ascending aortotomy is performed. The valve is repaired; this may include valvotomy, debridement, debulking, or simple commissuroplasty. The aortotomy is closed. Egress for potential retained intracardiac air is ensured, and the aortic cross-clamp is removed. The heart is rewarmed and resuscitated. Temporary pacing wires are placed as indicated. The left atrial vent is removed. Wean from CPB, and postrepair TEE is reassessed for potential retained intracardiac air, adequacy of valve repair, and ventricular function. Heparin reversal with protamine after decannulation from CPB is directed. Appropriate mediastinal and pleural tubes are placed, hemostasis is ensured, and the pericardium (primary or with patch augmentation) is closed as appropriate. The sternotomy incision is closed.
Clinical Example (33391)

A 52-year-old male with a bicuspid aortic valve presents with valvular aortic stenosis and severe aortic insufficiency. He reports decreased exercise tolerance, with shortness of breath and easy fatigability. EKG shows left ventricular hypertrophy and a 40 mmHg gradient across the aortic valve, with severe aortic insufficiency due to fusion of the commissure between the left and noncoronary cusps with retraction and dysplastic thickening of the aortic valve leaflets.

Description of Procedure (33391)

A sternotomy is performed, the thymus is divided or resected, the pericardium is opened and suspended, and appropriate purse string sutures are heparinized and placed for cannulation. The patient is heparinized and arterial and venous cannulas are inserted for CPB, which is initiated after adequate anticoagulation is ensured. The left atrial vent is inserted, and cooling is initiated as appropriate. The cardioplegia delivery catheter is placed, the aorta is crossclamped, and cardioplegia is administered. An appropriate ascending aortotomy is performed. The valve is repaired; this may include resection of thickened rudimentary commissure with reconstruction using a pericardial patch. The valve commissures are resuspended, and a subvalvular annuloplasty is performed in addition to debulking the thickened aortic valve leaflets. The aortotomy is closed. Egress for potential retained intracardiac air is ensured, and the aortic cross-clamp is removed. The heart is rewarmed and resuscitated. Temporary pacing wires are placed as indicated. The left atrial vent is removed. Wean from CPB, and postrepair TEE is assessed for potential retained intracardiac air, adequacy of valve repair, and ventricular function. Heparin reversal with protamine after decannulation from CPB is directed. Appropriate mediastinal and pleural tubes are placed, hemostasis is ensured, and the pericardium (primary or with patch augmentation) is closed as appropriate. The sternotomy incision is closed.

Revise the description of procedure for codes 33390, 33391 to clarify that the patient was heparinized.

Medicine
Vaccines, Toxoids

#● 90674 Influenza virus vaccine, quadrivalent (ccIIIV4), derived from cell cultures, subunit, preservative and antibiotic free, 0.5 mL dosage, for intramuscular use

Clinical Example (90674)

A 52-year-old male presents at his physician’s office for his annual physical and evaluation in October. His physician tells him that the Advisory Committee on Immunization Practices advises that anyone 6 months of age and older who does not have
contraindications to vaccination, should receive an annual vaccination against influenza before the start of the influenza season.

**Description of Procedure (90674)**

During the annual influenza vaccination season, as part of the patient’s overall visit and evaluation and per the physician’s office standing orders, an influenza vaccination is administered by a registered nurse (RN). A vaccine information sheet that summarizes the risks and benefits of vaccination as well as potential side effects is provided by the RN. The injection site is evaluated, antisepsis is applied, and the injection is provided intramuscularly. Standard medical practice of a 15-minute waiting period post vaccination is recommended.

**Add vignette for new code 90674.**