The Cost of Cleft Care

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**PURPOSE/BACKGROUND:** Cleft palate is a common birth defect, affecting approximately 1 in 1700 births worldwide.

Patients with cleft palate with or without lip involvement (CP±L) often require multiple surgeries, diagnostic procedures, and long-term follow-up with a multidisciplinary craniofacial team. Plan of care varies by the extent of cleft involvement, as most often described by the Veau classification system. We aim to estimate the total Medicare charges associated with management of CP±L, as classified by Veau type.

**METHODS:** Theoretical protocols for patients with non-syndromic CP±L were developed based on institutional standard of care. The patients with non-syndromic CP±L were divided into four groups (Veau I–IV) according to cleft phenotype. The theoretical protocols consisted of craniofacial team visits, diagnostic tests, and cleft-related surgeries. Patients from 1975 to 2008 were reviewed to identify additional cleft-related procedures required beyond standard surgical correction of the cleft lip/palate/ alveolus defect. These surgeries include, but were not limited to, surgery for velopharyngeal insufficiency and/or orthognathic surgery. Provider reimbursement for CPT codes of cleft-related craniofacial visits, diagnostic evaluations, and operations was determined using the Medicare Physician Fee Schedule Search for the year 2020 with the appropriate geographical adjustment. Hospital reimbursement by Medicare for the corresponding cleft-related interventions was determined by institutional review of charges collected from Medicare. Provider and hospital charges were summed to determine total Medicare reimbursement from time of birth to 21 years of age.

**RESULTS:** At baseline, all patients with CP±L (regardless of Veau type) received craniofacial team visits yearly until age 21. The summed value of hospital and provider reimbursement for craniofacial team visits was $39,410.73 for all Veau types. The total number of surgeries, types of surgeries, and diagnostic studies required varied by Veau type. Baseline total reimbursements from Medicare for patients with Veau-I, Veau-II, Veau-III, and Veau-IV were $41,449.64, $46,225.53, $51,698.01, and $53,379.41, respectively. In total, 19% and 54% of patients with CP±L received surgery for VPI or orthognathic surgery, respectively. When accounting for the addition of these procedures, maximal total charges to Medicare for Veau-I, Veau-II, Veau-III, and Veau-IV were $42,663.73, $47,439.62, $55,695.64, and $57,377.04, respectively, reflecting reimbursements for the top 10% of the population.

**CONCLUSIONS:** Caring for the patient with cleft palate requires an interdisciplinary team of surgeons, speech therapists, audiologists, dentists, orthodontists, and social workers. Although the true hospital and provider reimbursements associated with cleft treatment vary between individual patient and payor, we aimed to provide an overview of the financial burden to the healthcare system for a single patient with CP ± L.

Incidence of Orthognathic Surgery in Patients with Repaired Cleft Lip and Palate

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**BACKGROUND/PURPOSE:** An estimated 20%–50% of patients with a history of cleft lip/palate (CL/P) require Le Fort I osteotomy (LF1) for correction of midface hypoplasia (MH); however, these rates vary significantly across institutions. The primary goal of this study was to determine the rate of clinically significant MH necessitating LF1 correction in patients with CL/P. Secondary outcomes evaluated include the impact of cleft phenotype and number of prior CL/P related surgeries on the eventual need for LF1 osteotomy.

**METHODS:** An institutional retrospective review of patients with CL/P born between 1975 and 2008 was performed. Patients with adequate documentation reflecting cleft care who were aged 18 years or older at the time of last craniofacial/dentistry follow-up were included. Patients