

American Telemedicine Association

**RE: Regulation CMS-1385-P - Proposed Revisions to Payment Policies under the Physician Fee Schedule, and Other Part B Payment Policies for CY 2008
Reply Comments of the American Telemedicine Association Regarding Medicare Telehealth Services**

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These comments are provided by ATA in response to the proposed regulations for Medicare Telehealth Services issued by CMS in the July 12, 2007 Federal Register (pages 38143-38145).

Subsequent Inpatient Visits 99231-233

ATA requested CMS to add “subsequent hospital care” codes since the previous “subsequent inpatient consultation” codes were deleted. CMS declined to approve the request since the “subsequent hospital care” codes are broader and include services for acutely ill patients. The Agency stated a lack of comparative analyses showing the efficacy of using telemedicine for acute cases. The ruling stated “We continue to have concerns about using a telecommunications system as a substitute for the on-going (in person) evaluation and management (E/M) of a hospital inpatient. Therefore, we propose to not add subsequent hospital care as described by HCPCS codes 99231 through 99233 to the list of Medicare telehealth services” (p.38144). However, CMS requested comments about providing telehealth reimbursement for “subsequent hospital care for telehealth only when the codes are used for follow-up inpatient consultation (and not for inpatient visits).”

Two scenarios were described to CMS in ATA’s original request to re-establish Subsequent Inpatient Visits – the first scenario including patients admitted to a rural or remote inpatient hospital or critical access hospital, both eligible originating sites, by an attending physician and followed by the same attending physician, who subsequently consulted with a specialist for the care of the patient and the second scenario involving an attending or admitting physician who sees the patient in-person for the initial visit, and provides subsequent care via telemedicine including after-hours and weekend unscheduled visits. The comparison *is not* between in-person care, versus care via telemedicine, the comparison *is when no other care is available*. ATA can provide information stating that there are equivalencies between in-person and telemedicine encounters, but it is ipso facto evident that in such cases telemedicine is better than ***no*** care. Studies have been conducted that indicated care is better than no care when provided for in-person care, and clearly show that appropriate, timely care provides better clinical outcomes than no care at all.

In the past, CMS has added several CPT codes to the list of approved Medicare telehealth codes without evidence submitted to show that telemedicine does not alter the diagnosis, and that patients and providers are satisfied with telehealth encounters. Two such sets of codes are the dialysis codes approved in 2004, and the psychiatric diagnostic interview examination (as described by CPT code 90801) added to the list of Medicare telehealth services in CY 2003. “To date, Medicare expenditures for telehealth services have been extremely low. For instance, in CY 2006, the total Medicare payment amount for telehealth services (including the originating site facility fee) was approximately \$2 million. The addition of CPT code 90801 in 2003 resulted in an increase in Medicare payment amounts of approximately \$100,000 in CY 2006. In its own words, CMS has stated “moreover, previous additions to the list of Medicare telehealth services have not resulted in a significant increase in Medicare program expenditures.” (p. 38216)

The process of requiring Class 2 evidence for addition of subsequent inpatient care as well as the denied neurodevelopment testing codes, does not meet the need of CMS to identify cost-savings strategies with implementation of new CPT codes, nor does it allow for a comparison of when no care is available versus providing care via telehealth. The system simply does not fit. CMS itself has not adhered to the process in adding previous CPT codes in 2003 and 2004. With the federal government using telehealth throughout the Veteran’s Administration Health system as well as Indian Health Services, and with the strong application of telemedicine in military operations and health care organizations, the public continues to be denied the benefits of access to care through telehealth due to a process for approval that does not fit the current environment nor the situation in which telehealth is most valuable, when no care exists.

ATA continues to request the addition of subsequent hospital care for subsequent inpatient visits 99231-99233. ATA provided substantial information to CMS in the original CPT code request for addition of services showing that in the instance where NO services were available, critical specialty services were able to be provided to rural and remote patients through the use of telemedicine. The first situation in which codes 99231-99233 would be used is when no services are available and where telemedicine can be used to provide such specialty services. The availability of a tertiary care trauma surgeon, a neurologist for both initial and follow-up stroke evaluation, a psychiatrist for initial assessment and prescriptive safety orders, an infectious disease provider, or a cardiologist can all be accomplished over telemedicine when no one of these specialties are available on-site. The first issue is not one of replacing on-site services, the issue is putting a specialist and a generalist together in the most critical period, the acute phase, when diagnostic and interventional decisions can decrease cost and improve clinical outcomes. The golden hour of trauma and the window of opportunity for stroke are two such examples where the addition of a specialist to the diagnostic decision tree ultimately improves clinical outcomes.

Telemedicine networks throughout the country are starting to target telestroke care. In areas where local stroke care specialists are not available, telemedicine can link an emergency department or ICU physician with a specialist in a stroke treatment center. This consultation provides an opportunity for administration of thrombolytic drugs within the short therapeutic time window associated with ischemic stroke. The University of Maryland Medical Center used a triplexed integrated services digital network line providing a 30-frames-per-second video link to St Mary's Hospital >100 miles away. The system uses a pan, tilt, and zoom camera with

remote site control, allowing 2-way, real-time, audiovisual communication and CT image transfer. In this study, a retrospective review was conducted of all acute stroke consultations provided to St Mary's Hospital between 1999 and 2001. Fifty consultations were reviewed. Of the 50, 23 were attempted through telemedicine linkage, and 27 were by traditional telephone conversation, followed by transfer. Of the 23 telemedicine consultations, 2 were aborted because of technical difficulties. Of the patients evaluated by traditional means, 1 of 27 (3.8%) received intravenous rtPA; 5 of 21 (23.8%) received rtPA after telemedicine consultation. No patients experienced complications. In conclusion, telemedicine consultation provided treatment options not previously available at the remote hospital. Administration of rtPA during telemedicine consultation was feasible and safe, and the system was well received. In some cases coding for such services may be considered part of emergency room or outpatient services. However, in many other cases where the patient has been admitted, such services are in-patient care. Lack of reimbursement for such telemedicine services will hinder widespread adaptation of this promising technology for remote acute stroke treatment.

CMS has stated they continue to have concerns about using a telecommunications system as a substitute for the on-going (in person) evaluation and management (E/M) of a hospital inpatient and with the acuity of hospitalized patients. Patients seen in the emergency department typically have a higher acuity, are more precarious in their physical state, and many times do not have a diagnosis. Hospitalized patients have been seen and admitted by an on-site physician and have a preliminary diagnosis. Emergency patients do not. Yet, CMS reimburses for care delivered via telemedicine to emergency patients. We provide the following study as evidence that if the needs of higher acuity emergency patients can be met through telemedicine, we also believe that hospitalized patients' needs can also be met. In a study by Handschu et. al.¹, acute stroke care was evaluated. In acute stroke care, rapid but careful evaluation of patients is mandatory but requires an experienced stroke neurologist. Telemedicine offers the possibility of bringing such expertise quickly to more patients. This study tested for the first time whether remote video examination is feasible and reliable when applied in emergency stroke care using the National Institutes of Health Stroke Scale (NIHSS). A multimedia tele-support system for transfer of real-time video sequences and audio data was used. The remote examiner could direct the set-top camera and zoom from distant overviews to close-ups from the personal computer in his office. Acute stroke patients admitted to our stroke unit were examined on admission in the emergency room. Standardized examination was performed by use of the NIHSS (German version) via telemedicine and compared with bedside application. In this pilot study, 41 patients were examined. Total examination time was 11.4 minutes on average (range, 8 to 18 minutes). None of the examinations had to be stopped or interrupted for technical reasons. Unweighted [kappa] coefficients ranged from 0.44 to 0.89; weighted [kappa] coefficients, from 0.85 to 0.99. The study concluded that *remote examination of acute stroke patients with a computer-based telesupport system is feasible and reliable when applied in the emergency room*; inter-rater agreement was good to excellent in all items.

Since these early tests, the use of telemedicine for treating stroke patients has expanded throughout the globe. At the Partners Telestroke Center in Boston, MA they have successfully

¹ LaMonte, Marian P. MD, MSN; Bahouth, Mona N. MSN, CS, CRNP; Hu, Peter MSE; Pathan, Mohammed Y. MD; Yarbrough, Karen L. MS, CS, CRNP; Gunawardane, Ruwani MD; Crarey, Patrick MD; Page, Wesley MD. Telemedicine for Acute Stroke: Triumphs and Pitfalls. Stroke. 34(3):725-728, March 2003.

used telemedicine to provide 24 hour acute “stroke expertise-on-demand” to a number of hospitals in Massachusetts. Their services are used by local hospitals to fulfill state and federal laws requiring such services for all emergency rooms. Similar services are starting to be used in many other hospitals and medical centers in the United States, Canada, the UK, Scandinavia and other parts of the world. According to a study performed at the Henry Ford Hospital in Detroit “Telemedicine for stroke has the promise to become a key revolutionary component of an integrated health-care delivery system. It can link rural hospitals and under-resourced urban hospitals with regional acute stroke centers of excellence, enhancing standardized streamlined care throughout a system's care facilities. It may be important to link isolated lower stroke volume hospitals to a larger stroke network.”²

In some instances, not allowing these codes to be used can result in blocking Medicare patients from receiving these services, reversing previous Congressional and CMS policy and flying in the face of over 15 years of experience, federal investments and supportive research. For cases such as the use of telemedicine for early assessment of stroke patients and providing inpatient care where specialist services are not otherwise available, such a decision denying coverage will inevitably lead to additional early deaths.

With respect to cost, there is data showing that costs associated with hospitalizations in the acute management of the patient when specialty services are available via telemedicine go down. In a study conducted by the University of California at Davis, the objective of the research was to examine the fiscal impact of telemedicine consultations for acutely ill and injured children in a rural setting using pediatric intensive care unit (ICU) telemedicine. One hundred seventy-nine acutely ill and injured infants and children were cared for in the Mercy Redding ICU from April 2000 to April 2002. Data were gathered from these patients, including 47 patients who received 70 pediatric ICU telemedicine consultations during the same time period. Transport and hospital costs avoided were calculated for patients who received telemedicine consultations (Group 1) and for those not transferred due to the availability telemedicine consultations (Group 2), estimated to be one-half of the 179 patients (Group 2). The revenue generated in the rural ICU based on the ability to keep these patients was also determined. An estimated annual cost savings of \$172,000 and \$300,000 for transport and inpatient care was demonstrated for Group 1 and Group 2, respectively. Additionally, this program resulted in generating \$186,000 and \$279,000 of inpatient revenue annually for the two groups at the rural hospital. The cost of this program was approximately \$120,000 per year. Given the substantial financial savings, support for underserved rural programs, and significant funds kept in the rural community, this may serve as a viable model for providing care to acutely ill and injured infants and children.³

² "Telestroke" The Application of Telemedicine for Stroke, Steven R. Levine, MD Mark Gorman, MD, Center for Stroke Research & Henry Ford Stroke Program, Henry Ford Hospital & Health Science Center, Detroit, Mich, *Stroke*. 1999;30:464-469

³ James P. Marcin, Thomas S. Nesbitt, Steven Struve, Craig Traugott, Robert J. Dimand. Telemedicine Journal and e-Health. 2004, 10(supplement 2): S-1-S-5. doi:10.1089/tmj.2004.10.S-1. Telemedicine Journal and e-Health. Financial Benefits of a Pediatric Intensive Care Unit-based Telemedicine Program to a Rural Adult Intensive Care Unit: Impact of Keeping Acutely Ill and Injured Children in Their Local Community

Neurobehavioral Status Exam and Neuropsychological Testing

ATA asked for approval of codes relating to both types of services. CMS approved neurobehavioral status exams (HCPCS code 96116) as an eligible telehealth service. However the Agency stated: “We believe that neuropsychological testing services are category 2 services because, as explained further below in this section, the roles of and interaction among the physician or practitioner at the distant site and beneficiary at the originating site are not similar to existing telehealth services.” CMS added: “the information submitted was not sufficient to enable us to determine whether the use of a telecommunications system would affect the diagnosis or treatment plan as compared to a face-to-face delivery of neuropsychological testing services” (p. 38144). Therefore, CMS did not propose to add the service has asked for evidence where such services could be provided effectively using telemedicine, opening the door for a positive decision later.

The codes are used to report “the services provided during testing of the cognitive function of the central nervous system. The testing of cognitive processes, visual motor responses, and abstractive abilities is accomplished by the combination of several types of testing procedures”. Testing includes administering such tests as the MMPI and WAIS, Developmental Screening Test II, Early Language Milestone Screen, etc. Typically, these tests are administered by a trained technician without the physician or provider present, under the general supervision requirements (Jun 23, 2006, CMS Manual System, Pub 100-02 Medicare Benefits Policy, sec 80). Physicians who will use 96116 to provide a neuropsychological exam will determine, as a result of that exam, which tests are appropriate for the patient. The tests are then typically administered by a technician who reports the results in a standardized fashion to the provider. In the telehealth example, there are many tests which are easily carried out via telehealth. Memory tests, visual recognition, language and other visual or verbally oriented tests can be easily administered via telehealth. For those tests that require in-person assistance, the telepresenter would assist, as they do in other consultations and visits already approved.

In a study by Cullum et. al. (2006)⁴ the researchers studied whether or not videoconferencing could be used to administer neurocognitive assessments. The researchers administered a battery of common neuropsychological tests to persons with mild cognitive impairment or mild to moderate Alzheimer’s disease. The Mini-Mental State Exam (MMSE) and the Clock Drawing Test were administered to patients aged 83 to 95 and compared in-person (face-to-face) with videoconferencing examination. The testing administered by videoconferencing was successfully completed in all cases, and there was close agreement with test findings when administered face-to-face. Telecognitive testing was well tolerated by all participants (p. 389).

Alberta Hospital Ponoka⁵ was the site of a study where the feasibility of administering neuropsychological tests via videoconferencing was compared to face-to-face testing. Participants all over the age of 60 without neurological or psychiatric disturbance were tested under two experimental conditions – face-to-face and via videoconference at 336 or 384 kbps.

⁴ Cullum CM, Weiner MR, Gehrman HR, Hynan LS. (2006). Feasibility of Telecognitive Assessment in Dementia. *Assessment* Vol 13, p. 385-390.

⁵ Hildebrand R, Chow H, Williams C, Nelson M, Wass P. 2004. Feasibility of neuropsychological testing of older adults via videoconferencing: implications for assessing the capacity for independent living. *J Telemed Telecare*, 10(3), 130-4.

Memory and learning, letter fluency, expressive word knowledge, reasoning, verbal attention, and visual-spatial processing were tested. Scores for expressive word knowledge were similar in the two test conditions.

In addition, there are several studies on the reliability of conducting neuropsychological testing over standard telephone, voice prompting, and computer technologies. Without the examiner present, patients complete neuropsychological testing effectively. Interactive voice response technology was used via POTS to measure cognitive function traditionally measured by a clinician or in paper-and-pencil formats.⁶

Telephone word-list recall was tested in a rural aging and memory study.⁷ Word lists included the standardized telephone interview of cognitive status (TICS) and two newly developed lists. Results indicated that there were no differences in comparing the TICS and the two newly developed lists. This study, although not comparing in-person to telephone testing, does demonstrate that a standard does exist for telephonic neuropsychological testing, and that the introduction of video-conferencing to the equation will only enhance the accuracy and validity of testing.

And finally, with respect to telephonic testing, in a test of the reliability using a telephone interview procedure for cognitive, function, and behavioral scales in an elderly population with normal aging and dementia, researched performed assessments on patients both in-person and over the telephone. Results indicate that a telephone format is a reliable procedure for obtaining the assessment modalities studied.⁸

A web-based screening tool for monitoring cognitive status was tested in a study by Erlanger et al.⁹ Testing occurred over time to give neuropsychologists a better picture of an individual's cognitive status than a single point in time test. The study used screening batteries that could be administered online in a secure, supervised environment. Two neurocognitive test protocols were developed that were web-based and included components of standardized tests. The cognitive subsets were a number recall test, a number sequencing test, a memory cabinet 1 and 2 test, an incident learning 1 and 2 test, a response direction 1 and 2 test, a animal decoding test, and a symbol scanning test. Data from the study indicated that the four CSI factors had acceptable psychometric properties with regard to reliability and their correlation with traditional tests measuring similar cognitive function. Again, these tests were administered via computer.

ATA believes that again, addition of neuropsychological testing codes will have little budgetary impact, as previously demonstrated by the addition of 90801, and that evidence exists that many if not all neuropsychological testing can occur via telemedicine with reliable and valid results,

⁶ Mundt JC, Geralt DS, Moore HK. 2006. Dial "T" for testing: technological flexibility in neuropsychological assessment. *J Telemed Telecare*. Jun;12(3):317-23.

⁷ Hogervorst E, Bandelow S, Hart J Jr, Henderson VW. Telephone word-list recall tested in the rural aging and memory study: two parallel versions for the TICS-M. *Int J Geriatr Psychiatry* 2004 Sep;19(9):875-80.

⁸ Monteiro IM, Boksay I, Auer SR, Torossian C, Sinaiko E, Reisberg B. Reliability of routine clinical instruments for the assessment of Alzheimer's disease administered by telephone. *J Geriatr Psychiatry Neurol*. 1998 Spring;11(1):18-24.

⁹ Erlanger DM, Kaus T, Bros D, Freeman J, Feldman D, Festa J. 2002. Development and validation of a web-based screening tool for monitoring cognitive status. *J Head Trauma Rehabi*. Vol 17(4):48-476

particularly in the environment with a telepresenter is with the patient. **With much interaction between health care providers and patients occurring over the telephone and through the use of computers, as well as substantial research showing the efficacy of such services, there is no plausible reason not to move forward with approval of 96118 and 96118.**