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Before the

Senate Committee on Finance

On the CHRONIC Care Act of 2017

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Chairman Hatch, Ranking Member Wyden, and other Members of the Committee, thank you for the opportunity to testify on behalf of the American Heart Association/American Stroke Association at today's hearing about the CHRONIC Care Act (Creating High-Quality Results and Outcomes Necessary to Improve Chronic Care Act, S. 870). I commend you for your bipartisan work to strengthen and improve health outcomes for Medicare beneficiaries living with chronic conditions. Your legislation, if enacted, would help patients receive care that meets their unique chronic health care needs, as well as create incentives for the provision of coordinated care services to high-cost Medicare beneficiaries. This represents an important step forward in moving the Medicare program away from a system based on episodic care to a more responsive and comprehensive health care program. The American Heart Association is pleased to offer our support for this legislation.

We recognize that implementing policies that facilitate increased care coordination, incentivize high quality care, and increase the Medicare program's efficiency while improving health care outcomes and reducing costs is a considerable challenge with no single policy solution. We applaud the Committee for including several provisions in this legislation that take significant steps forward to improving care coordination for individuals with cardiovascular disease and stroke. We support policies that would allow Medicare Advantage (MA) plans to use additional, clinically appropriate telehealth technologies. We also support proposals that would give MA Plans more flexibility to vary benefit structures based on chronic conditions and offer a wider array of supplemental benefits than they currently do. In addition, we support the

request for studies by the Government Accountability Office on medication synchronization and obesity drugs. These and other provisions in the bill will be extremely beneficial to individuals suffering from cardiovascular disease and stroke.

However, we are particularly grateful that Congress included a provision that would expand the use of telehealth for individuals with stroke. In addition to being a long-time volunteer of the American Heart Association, I am also a member of the American Academy of Neurology. The American Heart Association/American Stroke Association has been working very closely with the AAN to improve Medicare's coverage of stroke telemedicine – or “telestroke” care, as it is now commonly called. We applaud the Finance Committee for including this common-sense provision in the CHRONIC Care Act.

Stroke takes an enormous toll on families and on our nation. It is our nation's No. 5 killer and a leading cause of serious, long-term disability and dementia.ⁱ As the Baby Boomers age, it is critically important that we reduce the burden of this devastating disease on stroke survivors, their families and on federal health care programs. According to MedPAC, stroke is the leading Medicare diagnosis for inpatient rehabilitation stays,ⁱⁱ and a leading diagnosis requiring nursing home care. A report released by the American Heart Association earlier this year projects that this burden is only going to increase: despite better prevention, the number of people living with stroke will increase from 7.5 million Americans in 2015, to 11.2 million in 2035, a 50 percent increase over the next 20 years. The study also estimates that the medical costs of stroke in the U.S. will more than double, from \$37 billion in 2015, to \$94 billion in 2035.ⁱⁱⁱ By improving access to telestroke care, we can ease this burden.

Time Is Brain

In the treatment of stroke, we often say that “time is brain.” For every minute that a stroke goes untreated, 2 million brain cells and 14 billion connections between them die, and they don't grow back. The clot-dissolving drug Alteplase (or tPA) and mechanical clot-removal devices are highly effective treatments for the most common type of stroke – acute ischemic stroke – and significantly reduce disability from stroke by restoring blood flow to the affected areas of the brain, but they must be administered as quickly as possible after stroke symptoms start. Research from the American Stroke Association's Target: Stroke initiative shows definitively that stroke patients who get treated with tPA within 60 minutes of hospital arrival do

significantly better than those treated more slowly. In particular, we have found that for every 15 minute reduction in treatment time, 5.1 percent more patients recover so completely that they can return directly home from the hospital.^{iv} Ischemic stroke patients who are treated with the clot-busting drug within 90 minutes of symptoms starting are nearly three times more likely to recover with little or no disability.^v Similarly, more than 90 percent of patients treated with a clot retrieval device within 150 minutes of stroke onset recover with little or no disability.^{vi}

I have seen firsthand the miraculous difference these treatments can make for patients, but unfortunately, only about 3.4 to 5.2 percent of patients receive the clot-busting medication^{vii} and even fewer patients are treated with clot retrievers. Among Medicare-eligible patient discharges, the national average tPA treatment rate is only 2.4 percent.^{viii} There are a number of reasons why treatment rates have remained so low, including long distances to stroke center hospitals, a shortage of vascular neurologists, and patients not arriving at the hospital within the treatment time window.^{ix} The good news, however, is that the use of telestroke has proven to be extremely effective in increasing the percentage of stroke patients who receive Alteplase and in reducing the time it takes to get the treatment started.

Telestroke Is Effective

Rapid and accurate diagnosis of acute ischemic stroke is a critical first step to ensuring that these patients receive the optimal care. A variety of conditions can mimic acute stroke, but many rural hospitals and even suburban community or inner-city hospitals do not have stroke neurologists available in house or on-call around-the-clock to examine and diagnose patients in-person. Even in urban or suburban settings, where approximately 94 percent of strokes occur, patients may experience delays to diagnosis and treatment. To a large extent this is because there is a shortage of vascular neurologists, many hospitals do not have any, and in those that do neurologists having competing demands on their time that prevent them from being in the Emergency Department 24/7 in person. Telemedicine can meet this need. We estimate from 2014 data that the number of Medicare beneficiaries 65 and older who have a stroke and would be newly eligible for a telestroke consultation to be approximately 522,000. This would include individuals in rural areas that do not meet the current and fairly narrow definition of “rural” for Medicare payment of telestroke services.

When a patient presents at a hospital that does not have a stroke expert readily available, the Emergency Department physician can use a telemedicine network to immediately consult with a stroke expert. Using fully interactive and secure audio-video systems, the stroke expert can interact with the patient and the bedside physician and swiftly and accurately obtain the proper history, perform the NIH Stroke Scale, (a brief stroke severity scale), review the CAT scan and confirm the diagnosis of stroke. The interpretation of the brain imaging is critical to ensure that the patient is not having a hemorrhagic stroke or other diagnosis that would make use of tPA unsafe.

This use of telemedicine in the acute treatment of stroke has greatly improved the percentage of patients who receive the recommended acute stroke treatment, as numerous studies have demonstrated. One recent study of four urban hospitals in Illinois with low tPA treatment rates found that their utilization of tPA increased by two to six times after telestroke was implemented.^x Moreover, the outcomes for stroke patients who are cared for in hospitals with telemedicine support have been comparable to those achieved in other stroke centers and have surpassed those achieved by general hospitals without telemedicine support or stroke units.^{xi}

Despite the proven benefits of telestroke, Medicare's coverage of it is woefully outdated. The current Medicare policy of limiting coverage for telehealth services to those patients originating in only rural areas has hampered the development of sufficient telestroke coverage. The most significant step Congress could take would be to allow Medicare to reimburse for telestroke evaluations for patients regardless of their location, as the CHRONIC Care Act would do.

Telestroke Saves Money

In addition to improving access to the recommended care, we believe that greater use of telestroke will also result in healthcare cost savings by reducing chronic disability and the need for more extensive and ongoing medical care. Several studies have clearly shown that the use of tPA is cost-saving for stroke care. According to a study published in the *New England Journal of Medicine*, stroke patients receiving clot-busting therapy were at least 30 percent more likely to have minimal or no disability at three months, compared to patients who did not receive this treatment. These patients also have shorter hospital stays and are more frequently discharged

to their homes rather than to more costly nursing homes.^{xii} Another study found that the average cost savings when administering tPA was \$4,255.00 in 1996 dollars per treated patient, largely as a result of decreased utilization of nursing home and rehabilitation care by the patient.^{xiii} Yet another study aimed at evaluating the cost utility of telestroke networks estimated net savings of \$1,436 per patient, even after accounting for the costs of implementing the telestroke network and administering tPA.^{xiv}

In fact, the American Heart Association has estimated that the Medicare and Medicaid programs could save as much as \$1.2 billion over 10 years, even after the costs of providing more telestroke evaluations and more tPA treatments are factored in. I understand that the Congressional Budget Office may not allocate the full amount of savings to the federal Medicare and Medicaid programs since some of the savings that results from reducing the need for nursing home care accrues to state rather than federal governments and to patients and their families. I would argue, however, that even if the federal government's savings from Medicare and its share of Medicaid savings is more modest or takes time to be realized, taking this step to improve the quality of stroke care is still highly cost-effective and is the right thing to do for patients.

I believe this change in Medicare law is long overdue, and I am heartened by the growing number of lawmakers and organizations that have endorsed telestroke care. I want to thank Senators John Thune, Brian Schatz, and Roger Wicker for also introducing stand-alone legislation to expand Medicare's coverage for telestroke evaluations. Companion legislation in the House achieved 171 bipartisan cosponsors in the last Congress and is well on its way to exceeding that number this year with 77 co-sponsors already. In addition, organizations such as AARP, the American Hospital Association, the American Medical Association, and the National Coalition for Health Care have also expressed their support for lifting Medicare's restrictions on telestroke coverage. Finally, the Medicare Payment Advisory Commission, in its June 2016 report to Congress, found telestroke to be one of the most beneficial and cost-effective applications of telehealth and suggested that policymakers may want to expand Medicare coverage of telestroke to urban settings,^{xv} as the CHRONIC Care Act would do.

In conclusion, telestroke is supported by a wealth of evidence and is a common-sense, cost-effective step that the Committee can take to reduce the burden of stroke as a chronic disease. I am convinced that expanding the use of telestroke will greatly improve the quality of

care that stroke patients receive, increase the utilization of effective acute stroke treatments, reduce stroke-related disability for many Americans, and save the health care system money. These win-win opportunities are rare in healthcare, and I urge the Senate Finance Committee to act quickly on the CHRONIC Care Act and to send it to the full Senate and then the House for approval. Thank you again for addressing the challenging issues related to caring for Medicare patients with multiple chronic conditions. We greatly appreciate the thought and deliberations that went into the development of this bill and for the opportunity to express our strong support at today's hearing.

ⁱ Benjamin EJ, et al. Heart disease and stroke statistics--2017 update: a report from the American Heart Association. *Circulation*. 2017;135:00-00.

ⁱⁱ Medicare Payment Advisory Commission. March 2016 Report to the Congress: Medicare Payment Policy. March 15, 2016. Accessed online at: <http://www.medpac.gov/-documents/-reports>.

ⁱⁱⁱ American Heart Association/American Stroke Association. Cardiovascular Disease-A Costly Burden for America: Projections through 2035. February 14, 2017. Accessed online at: http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_491543.pdf.

^{iv} Fonarow GC, Zhao X, Smith EE, et al. Door-to-needle times for tissue plasminogen activator administration and clinical outcomes in acute ischemic stroke before and after a quality improvement initiative. *JAMA*. 2014;311:1632-1640.

^v Marler JR et al. *Neurology*. 2000;55(11):1649-55.

^{vi} Goyal M et al. *Radiology*. 2016;270(3):888-97.

^{vii} Adeoye O, et al. Recombinant tissue-type plasminogen activator use for ischemic stroke in the United States: a doubling of treatment rates over the course of 5 years. *Stroke*. 2011;42:1952-1955.

^{viii} Kleindorfer DO, Yingying X, et al. US Geographic Distribution of rt-PA Utilization by Hospital for Acute Ischemic Stroke. *Stroke*. 2009;40:3580-3584.

^{ix} Schwamm, LH., et al. Recommendations for the implementation of telemedicine within stroke systems of care: A policy statement from the American Heart Association. *Stroke*. 2009;40:2635-2660.

^x Cutting S, et al. Telestroke in an urban setting. *Telemed JE Health*. 2014;20(9):855-7.

^{xi} Schwamm LH, Holloway RG, Amarenco P, Audebert HJ, Bakas T, Chumbler NR, et al. A review of the evidence for the use of telemedicine within stroke systems of care: a scientific statement from the American Heart Association/American Stroke Association. *Stroke*. 2009;40:2616-2634.

^{xii} The National Institute of Neurological Disorders and Stroke rt-PA Stroke Study Group. Tissue plasminogen activator for acute ischemic stroke. *N Engl J Med*. 1995;333:1581-1587.

^{xiii} Fagan SC, Morgenstern LB, Petitta A, Ward RE, et al. Cost-effectiveness of tissue plasminogen activator for acute ischemic stroke. *Neurology*. 1998;50:883-890.

^{xiv} Demaerschalk BM, Switzer JA, Xie J, Fan L, Villa KF, and Wu EQ. Cost utility of hub-and-spoke telestroke networks from societal perspective. *Am J Manag Care*. 2013;19:976-85.

^{xv} Medicare Payment Advisory Commission. [June 2016 Report to the Congress: Medicare and the Health Care Delivery System](http://www.medpac.gov/-documents/-reports). June 15, 2016. Accessed online at: <http://www.medpac.gov/-documents/-reports>.