When the pandemic hit more than 2 years ago, nephrologists and their patients had to pivot on a dime to adapt to telehealth technologies. Those technologies have proved popular with both nephrologists and patients. But now, clinicians face new challenges as they try to develop sustainable and equitable hybrid telehealth and in-person care models for the long term.

Provisions in the 2020 Coronavirus Aid, Relief, and Economic Security (CARES) Act enabled the Centers for Medicare & Medicaid Services to temporarily waive restrictions on where and how patients could receive telehealth (1). This policy change led to a rapid expansion of telehealth care. Before the changes, telehealth was allowed for patients on home therapies, such as home hemodialysis and peritoneal dialysis, through the Bipartisan Budget Act of 2018 (2). But there were restrictions on using telehealth for other kinds of kidney care. Medicare only covered telehealth visits in rural areas, and patients could not access telehealth visits from home. Audio visits were prohibited, and clinicians could only use Health Insurance Portability and Accountability Act-compliant video platforms. Clinicians were concerned the changes would expire with the end of the COVID-19 public health emergency. But in March 2022, Congress passed, and President Biden signed into law, a spending bill (3) that extended the provisions 5 months after the official end of the COVID-19 public health emergency.

“We commend the legislators for including critical telehealth extensions in this must-pass legislation, ensuring that patients do not fall off a ‘telehealth cliff’ immediately after the COVID-19 public health emergency ends,” wrote Kyle Zebley, vice president of public policy at the American Telemedicine Association (ATA), in a statement (4). But the ATA and organizations representing physicians, such as the American Medical Association (5), want legislators to make the policies permanent this year.

Temporary reprieve

Nephrologist Susie Lew, MD, professor of medicine in the Division of Renal Diseases and Hypertension at George Washington University in Washington, DC, said the extension for at least 5 months is wise. She noted there are

Treating Mild Chronic Hypertension Improves Pregnancy Outcomes

By Timothy O’Brien

Chronic hypertension occurs in at least 2% of pregnancies in the United States and is associated with high rates of preeclampsia and other adverse pregnancy outcomes. There is ongoing debate over treatment strategies: Continuing antihypertensive therapy during pregnancy reduces the risk of severe hypertension but has not previously been shown to improve maternal, fetal, or neonatal outcomes.

Findings from a new trial reported in The New England Journal of Medicine suggest that pregnancy outcomes are improved by antihypertensive therapy for women with mild chronic hypertension, with a blood pressure target of less than 140/90 mm Hg.

The Chronic Hypertension and Pregnancy (CHAP) trial included 2402 pregnant women with mild chronic hypertension, defined as blood pressure of less than 140/90 mm Hg, enrolled from more than 70 US centers. The researchers found treatment for mild chronic hypertension was associated with a reduced risk of adverse pregnancy outcomes.
Treating Mild Chronic Hypertension

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Women eligible for the trial had singleton fetuses at gesta-
tional age less than 23 weeks. In open-label fashion, they were
randomly assigned to active treatment, consisting of antihy-
pertensive medications recommended for use in pregnancy,
or no treatment unless severe hypertension developed, which
was defined as systolic blood pressure of 160 mm Hg or
higher or diastolic blood pressure of 105 mm Hg or higher.

Pregnancy outcomes were compared between groups, in-
cluding a composite primary outcome of preeclampsia with
severe features, medically indicated preterm birth at less
than 35 weeks' gestation, placental abruption, or fetal or
neonatal death. Additionally, small-for-gestational-age birth
weight under the 10th percentile for gestational age was evalu-
ated as a safety outcome.

The primary outcome rate for those treated for mild
chronic hypertension was 30.2% compared with 37.0% for
the control group, with an adjusted risk ratio (RR) of 0.82.
There was no significant difference in the rate of small-for-
gestational age birth weight: 11.2% and 10.4%. Likewise,
serious maternal or potential abuse of telehealth visits, and
groups: 2.0% with treatment for mild chronic hypertension
and 2.6% with the deferred strategy. The incidence of severe
neonatal complications was 2.0% versus 2.6%.

The mild hypertension strategy was associated with a low-
er incidence of any preeclampsia: 24.4% versus 31.1%, RR
0.79. The study intervention was also associated with a lower
incidence of preterm birth: 27.5% versus 31.4%, RR 0.87.

The CHAP results suggest that antihypertensive therapy
for pregnant women with mild chronic hypertension, with a
blood pressure target of less than 140/90 mm Hg, reduces
the risk of adverse pregnancy outcomes including preeclampsia,
without increasing the risk of small-for-gestational-age birth
weight. The researchers noted: "[W]e found that active treat-
ment with antihypertensive drugs improved pregnancy out-
comes without harm" [8].

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Hybrid Telehealth Model Likely on the Horizon

still pockets of SARS-CoV-2 transmission throughout the
country. The move, she said, would help reduce transmis-
sion of the virus in health care settings. It also reduces the
burden on practices that might have to suddenly convert
patients with scheduled telehealth visits into in-person vis-
ts on short notice.

But nephrologist Eric Wallace, the medical director of
telehealth and director at the Home Dialysis Academy
at The University of Alabama at Birmingham (UAB), said he
was disappointed that Congress chose a temporary, short-
term extension of the COVID-19-era telehealth rules. In-
stead, he hoped that Congress would pass the Telehealth
Extension and Evaluation Act (6), a bill that would have
extended the rules for 2 years and put in place programs
to evaluate what telehealth can do well and what it cannot.

Wallace said he did not think 5 months would be enough
time to gather the evidence necessary to make the best pol-
icy decisions. He explained that the short timeframe makes
it harder for clinicians to plan and test telehealth programs.
It may also deter health institutions from investing in tele-
health care. “Many people are not willing to make a giant in-
vestment without some sort of permanency,” he said.

Wallace noted that clinicians and policymakers have al-
ready learned a lot about telehealth during the pandemic.
For example, fears that it would lead to fraud and abuse
or ramp up the cost of care have not materialized, he said.
A recent review in the Clinical Journal of the American Society
of Nephrology (7) about video-based telehealth care found
that patients with kidney diseases were satisfied with tele-
health care and felt it was comparable with in-person care.
Both patients with chronic kidney disease and those un-
dergoing dialysis said it improved their quality of life and
reduced care costs. “There are things we know telehealth
does very well,” Wallace said.

Broadband and barriers

Studies have also identified the need to reduce disparities in
telehealth care access. For example, a survey (8) of 298 pa-
tients with kidney diseases at the University of Pennsyl-
ania found that more older patients had reduced access to video
telemedicine. Patients who are non-White and older were
found that more older patients had reduced access to video

telehealth. Wallace and Lew agreed. “Broadband is becoming
a surrogate marker for socioeconomics,” Wallace said, not
proving a direct link. Studies have also identified the need to reduce disparities in
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Telehealth hubs could also help, both Lew and Wallace
recommended. “One way to solve that issue is instead of
bringing broadband to a patient’s home, bring it to a loca-
tion that patients have access to,” Lew said, for example, a
business or other community gathering site. Wallace and his
colleagues at UAB set up telehealth hubs at county health
departments throughout the state.

Wallace also highlighted assisted telehealth during a
presentation at Kidney Week 2021. Assisted telehealth
sends a community health worker, equipped with satel-
lite internet or another means of accessing the internet, to
patients’ homes to help them during telehealth visits. “We
need a multipronged approach,” he said.

Hybrid hope

Despite some of these challenges, both clinicians and pa-
tients are keen to continue with a hybrid in-person/tele-
health model of kidney care. “A large majority of patients
with that telemedicine will continue in some form,” Lew
said, based on preliminary data of patients from a survey
she conducted.

Continuing access to telehealth care is particularly im-
portant for patients with rare diseases, noted Wallace, who
co-directs the Fabry Disease Clinic at UAB. He explained
that many patients do not have easy access to rare disease
specialists and that some of his patients drive 4–8 hours or
even cross state lines to see him. Many states have enacted
rules that make it harder for clinicians to plan and test telehealth programs.

Another recent study in JAMA Network Open (9) found increased COVID-19 mortality in communities that lack
broadband access. Although the study could not prove a causal relationship, it added evidence of the importance
of universal broadband access as a social determinant of
health. Wallace and Lew agreed. “Broadband is becoming
a surrogate marker for socioeconomic,” Wallace said, not-
ning that broadband access is essential not just for accessing
telehealth but also for education, commerce, and even pur-
chasing medication. “It needs to be ubiquitous.”

Last year, the Infrastructure Investment and Jobs Act (10)
included $65 billion to expand broadband access in the
United States. But Lew said it is unlikely that broad-
band access will reach all US residents because of geo-
graphic or financial barriers. She noted that many cities
have extensive broadband networks, but not everyone can
afford to subscribe or pay for a device to access it. Both
Lew and Wallace suggested that efforts to make internet
access more affordable may help. For example, Lew sug-
gested making mobile phones available to those in need.

The Federal Communications Commission currently offers
eligible low-income households a $50 discount on broad-
band and a one-time $100 discount on a laptop, tablet,
or desktop computer through the Affordable Connectivity
Program. The program offers a $75 discount for those liv-
ing on qualifying Tribal lands.

“This is a return on investment of giving patients a choice,” Wallace said. “Let’s allow them to interact with the
[health care] system however they want to but put some guard-
rails around it.”

References

1. Public Law 116-123, 116th Congress. Coronavirus Pre-
paredness and Response Supplemental Appropriations
plaws/plaw123;publ123.pdf

2. Congress.gov. Public Law 115-123, 115th Con-
gress. Bipartisan Budget Act of 2018. February 9,
house-bill/1892/text

Consolidated Appropriations Act, 2022. March 15,
house-bill/2471

4. American Telemedicine Association. ATA and ATA
action commend Congress for extending telehealth
flexibilities post public health emergency to temporarily
avoid the ‘telehealth cliff,’ but will continue to work
with Congress on permanent solutions. ATA News.
press-releases/ata-and-ata-action commend-
congress-for-extending-telehealth-flexibilities-post
public-health-emergency-to-temporarily-avoid-the
‘telehealth cliff’ but will continue to work with cong/

5. American Medical Association. The AMA salutes
Congress for passing omnibus telehealth provisions.
-congress-passing-omnibus-telehealth-provisions

6. Congress.gov. 117th Congress. Telehealth Extension
 senate-bill/3593/text

cjasn.asnjournals.org/content/16/12/1813

8. Eneanya ND, et al. Age and racial inequities in
telemicine internet support among nephrology
outpatients during the COVID-19 pandemic. Kidney
xme.2021.05.001

9. Lin Q, et al. Assessment of structural barriers and
racial group disparities of COVID-19 mortality with
spatial analysis. JAMA New Open 2021; 5:e220984.

Infrastructure Investment and Jobs Act. November
house-bill/3608/text