Lack of Evidence Complicates Care for Nursing Home Residents With Epilepsy

By Christine Kilgore

There's mixed news for the diagnosis and management of epilepsy in nursing homes, where the prevalence of the disorder is estimated to be more than seven times higher than among seniors in the community.

Generally speaking, for instance, the main evidence-based guideline on management of an unprovoked first seizure in adults — published by the American Academy of Neurology and American Epilepsy Society (*Neurology* 2015;84:1705–1713) — is applicable to the nursing home population. That's good news, as is the development of a broader and "practical" definition of epilepsy by the International League Against Epilepsy (ILAE), two epilepsy specialists said at the Annual Conference of AMDA – The Society for Post-Acute and Long-Term Care Medicine.

What is vexing — and what represents a "huge hole" for clinicians caring for nursing home residents with epilepsy — is the lack of evidence to guide the appropriate use of antiseizure medications in this population, the speakers said.

"I don't necessarily have evidence that any of [newer] drugs are actually really better than others," said Ilo Leppik, MD, during a question-and-answer session that focused largely on drug choice and questions about therapeutic monitoring. "Levetiracetam and lamotrigine appear to be better for the elderly, especially in nursing homes, but we just don't have the data."

The 2015 guideline on management of an unprovoked first seizure does not discuss drug choice but rather decision-making about whether to initiate therapy immediately. Level A evidence supports that recurrence risk is greatest early within the first two years (21% to 45%), the guideline states. Clinical variables associated with increased risk include a previous brain insult, including stroke (level A); an electroencephalogram with epileptiform abnormalities (level A); a significant brain-imaging abnormality (level B); and a nocturnal seizure (level B).

"Immediate antiseizure therapy compared with a delay pending a second seizure is likely to reduce the recurrence risk for the first two years but may not improve the quality of life due to medication side effects," said Dr. Leppik, professor of neurology and pharmacy at the University of Minnesota, in reviewing the guideline. He said that, interestingly enough, immediate treatment is unlikely to improve the longer-term (>3 years) prognosis for seizure remission.

The guideline is not as applicable to the nursing home population when it comes to adverse event risks. The guideline reports a risk of drug-related adverse events of 7% to 31% and advises that the effects are predominantly mild; however, Dr. Leppik said, "in the nursing home the side effects may be more than mild because of preexisting issues with cognition."

Levetiracetam is probably the "most widely used antiseizure medication for the elderly, including in my practice," Dr. Leppik said during the question-and-answer session. The drug has "definite advantages ... but it causes the most issues with behavior. For that reason alone, I'm not convinced it's the best drug to use in the nursing home setting."

Rebecca O'Dwyer, MD, assistant professor in the Department of Neurological Sciences at Rush Medical College in Chicago, agreed that levetiracetam's side effect profile is concerning — particularly, based on her experience, in patients with frontal lobe epilepsy. "It's helpful to know where the seizures are coming from," she said, noting that she also often uses lamotrigine. "It's anecdotal, but I sometimes feel that people with temporal lobe epilepsy are less susceptible to those negative side effects [of levetiracetam]."

When asked about newer agents such as eslicarbazepine acetate (Aptiom) and lacosamide (Vimpat), Dr. Leppik cautioned that "industry is really pushing Aptiom for the elderly, but it's in the family of carbamazepine and oxcarbazepine, and all three of these drugs have a propensity for lowering sodium levels."

Therapeutic drug monitoring in the elderly requires a high level of individualization, Drs. Leppik and O'Dwyer emphasized. Asked about the importance of titrating antiseizure agents based on blood levels versus on seizure control, Dr. Leppik cautioned that "therapeutic range is a lab range value and can be very misleading" in the elderly population.

"It needs to be individualized," he said. "We know from experience that the elderly generally need lower blood levels because, for one, their seizures seem to better controlled [with lower levels], and secondly they seem to get side effects at lower levels than other adults."

Dr. Leppik said he was securing funding for a national survey of medical directors to learn more about how new-onset epilepsy is managed in the nursing home.

His prior research has helped define the epidemiology of epilepsy in the nursing home population. In 2017, Dr. Leppik and his coauthors reported in an analysis of all residents in all Medicare/Medicaid-certified nursing homes that the point prevalence of epilepsy/seizures was 7.7%, and that prevalence is 7 to 30 times higher in individuals with certain comorbid neurologic conditions. (*Neurology* 2017;88:750–757).

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complete crucial documents such as do not resuscitate (DNR) orders, POLST, and hospice election forms. These examples of innovative care delivery would not have been possible without flexibility and cooperation on the part of PC providers and PALTC staff to give patients appropriate, working access to this technology.

The impact of COVID-19 has been devastating in PALTC, and serious illness conversations and advance care planning have never been more critical. How the COVID-19 pandemic will impact the long-term delivery of health care remains unclear, but one thing is certain: incorporating PC concepts into the care of individuals with chronic, life-limiting illnesses across all health care settings empowers both patients and families, allowing them to have more information and perhaps a plan for when the unimaginable occurs.

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