Nearly one-third of adults age 65 and older who take thyroid hormone also take medications that are known to interfere with thyroid function tests, according to a study presented virtually at ENDO 2021, the Endocrine Society's annual meeting.

"Our findings highlight the complexity of managing thyroid hormone replacement in older adults, many of whom take medications for other medical conditions," said first author Rachel Beeson, M.D., of the University of Michigan in Ann Arbor, Mich. "Until now, the prevalence of concurrent use of thyroid hormone and interfering medications in older adults, and patient characteristics associated with this practice, has been unknown."

Thyroid hormone use is very common in older adults. Levothyroxine, used to treat hypothyroidism (low thyroid hormone), is one of the most frequently prescribed medications in the United States. Thyroid function tests are used to determine the dose and effectiveness of treatment.

The results of these tests can be altered by a variety of medications.

Beeson and colleagues analyzed data from 538,137 adults age 65 and older who used thyroid hormone. They looked at how many patients concurrently took thyroid hormone and medications that commonly interfere with thyroid function tests, such as prednisone, prednisolone, carbamazepine, phenytoin, phenobarbital, amiodarone, lithium, interferon-alpha and tamoxifen.

Overall, 31.6% of patients were taking medications that have been known to interfere with thyroid function tests.

"When we examined patient characteristics associated with concurrent use of thyroid hormone and at least one interfering medication, this was more likely to be seen in patients who were female, non-white and of Hispanic ethnicity," Beeson said. The researchers also found people who had other chronic medical conditions were more likely to concurrently use thyroid hormone and medications that interfere with thyroid tests.

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