Fourth year medical students’ required written patient care assignments reflecting awareness of use of vitamin D in older patients at risk for falling

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Background: On November 30, 2010, new Dietary Reference Intake recommendations for vitamin D were published by the Institute of Medicine. The Recommended Daily Allowance was revised upward to 800 IU/day for adults 71 and older. At that time we reported in e-SPEN low self-reported vitamin D levels as prevalent in our survey sample of physician (MD) medical school faculty living in an area of the USA with plentiful sunshine. MD’s who had their own vitamin D level checked were 4.5 times more likely to recommend greater than or equal to 800 IU/day for their patients as compared to those who reported not having had their own levels checked. Awareness of conditions associated with vitamin D deficiency other than osteoporosis, rickets and osteomalacia was relatively low. One specific example is falls in older persons where vitamin D is recommended as part of a multifactorial fall-risk assessment and prevention strategy, the CDC STEADI protocol. Our fourth year medical students taking a required geriatrics clerkship form functional assessment and a comprehensive medication review (including non-prescription medications) under the supervision of our faculty and write separate reports on each. After graduation consenting students have the opportunity to have their written reports studied in research approved by the IRB of Florida State University.

Research Question: We hypothesized that the proportion of patients noted as receiving 800 IU/day or more of supplemental vitamin D as noted in students’ written assignments would be low (less than 50%) where patients are functionally impaired and at risk for falls given overall low awareness in faculty of falls being a risk associated with vitamin D deficiency.

Subjects & Methods: Twenty two consenting students had their comprehensive medication review assignments reviewed representing 20 percent of all students taking the required geriatrics course at 6 regional campuses over one academic year. Each assignment represented one patient ages ranging from 55-97, mean age was 81 years. Prescription and non-prescription medications were reviewed and verified as required in the assignment.

Results: Four patients (18%) were on vitamin D: Calcitriol 0.25mg daily, vitamin D 50,000 International IU once weekly (a known vitamin D deficient patient), vitamin D 200 IU once daily and vitamin D 800 IU daily. In one case a student recommended that the patient not on a vitamin D supplement recommended vitamin D 800 IU daily to prevent falls.

Conclusion: In this cohort of 4th year medical students and their geriatric patients at high risk for falls, use of vitamin D was low and recommendation for use to prevent falls was low.

Biography

John Agens has received his MD degree in 1986 from Rutgers Medical School and completed an Internal Medicine Residency at Cooper Hospital University Medical Center, Camden, NJ in 1989. He is a board Certified in Internal Medicine and Geriatrics through the American Board of Internal Medicine. Prior coming to Florida State University College of Medicine as an Associate Professor in Geriatrics in 2008, he started and operated a solo internal medicine practice in his hometown of Blackwood, N.J 1989-1993. After moving to Eau Claire, Wisconsin, he has served for 10 years as a Geriatrician at Mideffort Clinic-Mayo Health System., 1991-2003. Throughout his career, he has taught and mentored medical students and residents as a Clinical Preceptor.

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