

## Ninety is the new ninety!

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For some years now we have become increasingly aware of the “graying of America.” Not only are the sheer numbers of the elderly escalating, but as folks are living longer, the ranks of the oldest-of-the-elderly are swelling in numbers as well. A few months ago it was reported in the Wall Street Journal that the “number of people age 90 or older has nearly tripled since 1980 to 1.9 million.” Moreover, the article projects that this age group will increase to 8.7 million by midcentury, compared to 100,000 people in the same age group a century prior.<sup>1</sup> These incredible numbers bring with them significant implications when one considers the healthcare this group will likely require, along with the cost of that care. Given these present and projected prospects, the entire health care provider community should certainly be gearing up for a possible paradigm shift regarding how to care for this cohort with undoubtedly unique health care needs. The medical community has gotten one of its first wakeup calls by way of a recent report regarding adverse drug events that have led to emergency hospitalizations for older Americans using medications that are not considered ostensibly high risk or inappropriate.<sup>2</sup>

As the population ages, the numbers of people with multiple chronic conditions will increase. It is documented that 40% of seniors (those 65 years of age and older) take somewhere between 5 and 9 medications, and 18% take 10 or more.<sup>3</sup> This clearly poses the challenge of polypharmacy, along with the need to appreciate the potential negative interaction of oral and/or topically administered drugs. Add to that the physiological changes of aging that modify the ability of the liver and kidney to process drugs as efficiently as when the individual was younger. It should be no big surprise, then, to realize that an increase in hospitalizations due to adverse drug events is rising and will continue to rise. What has come as a surprise, however, is that some of the more commonly prescribed medications, “warfarin, insulin, and digoxin, were implicated in 33.3%”<sup>2</sup> of adverse drug events. From a medical management standpoint, this poses a new challenge. In prescribing any medications for the aged population, it is critically necessary to recognize potential drug-drug interactions. It may also be necessary to reevaluate the accepted treatment of chronic conditions in the aged, possibly modifying endpoint “numbers,” i.e., range of normal blood glucose in older patients with diabetes. From an optometric perspective, the thought process involved in addressing these issues in the care of seniors would seem to have three components. First, we should become very familiar with the guidelines of the treatment of chronic conditions as well as the ranges of normalcy of those conditions as put forth by the medical specialists who establish such criteria. Second, we



should be cognizant of the ophthalmic implications of these conditions and strive to rule out any evidence of ophthalmic involvement. One of the ways to do that, as I once heard a lecturer report, is to aggressively look for the complications consistent with that pathology, and be convinced that they, in fact, are not there. We also must communicate our findings to those who are managing the various other aspects of the health care of these patients. One example of melding these two points is the assessment of patients who are on plaquenil therapy. In the recent past, the criteria for assessing plaquenil-related retinopathy has changed and has been reported in the literature.<sup>4</sup> Knowledge that this ophthalmic assessment has been changed (e.g., less reliance on Amsler grid and color vision testing) is important when reporting the findings to the prescribing doctor, because being current goes a long way to being credible. Finally, as the ophthalmic community is well aware, along with aging comes an increase in the incidence of visual impairment which can have an overarching effect on an individual's performance of activities of daily living in general, and management of medications more specifically.

Consider how a visual impairment might affect the length of stay when an older person is hospitalized from any adverse incident, drug related or otherwise. Anyone who has ever had the opportunity to spend “quality time” as a patient in a hospital setting (whether in an emergency room, short-term, or long-term facility) knows that patients are given instructions, both oral and written, especially when being discharged. As can be appreciated, the older one gets, the more difficult it may be to assimilate multiple instructions, especially if those instructions are novel. Add to that the inability to see written instructions clearly, possibly due to the lack of a current conventional lens prescription or to chronic vision loss (such as macular degeneration), and one can see why a visual impairment might increase the length of stay at a hospital, or create consternation for the hospital staff who will write the discharge orders.<sup>5</sup>

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Optometry is well-positioned to accept the responsibility of helping this growing populace of seniors by supporting the recommendations of the medical community and by direct involvement in the eye health and vision care of this population; we yet again show that we are an integral member of the health care community! The aging population puts the exclamation point on that statement.

## References

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