Geriatricians, Continuous Quality Improvement, and Improved Care for Older Persons

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“The most fruitful lesson is the conquest of one’s own error. Whoever refuses to admit error may be a great scholar, but he is not a great learner.”

Johann Wolfgang von Goethe

Maxims and Reflections

An excellent review article in this issue of the Journal highlights the importance of preventing mistakes in hospitalized older persons (1), and a future history examines the computerized medical record (2). The first article suggests that geriatricians should take the lead in putting systems into place to prevent errors occurring, as many of these errors have devastating effects on older persons. This call to arms for geriatricians, while not new, comes at a propitious time as we embark on our journey through the 21st century. While, in some way, this call to geriatricians (and other members of the gerontological interdisciplinary team) to improve hospital care echoes Kane’s suggestion that geriatricians should become superb chronic (old age) hospital doctors (3). This suggestion was so ably rebutted by others who pointed out that geriatrics had so much more to offer than just to provide hospital care (4–12). Geriatrics has evolved as the champion of the interdisciplinary team in many sites. Functioning interdisciplinary teams clearly represent an important approach to error reduction.

Geriatricians have played an important role in developing systems such as the Acute Care for the Elderly (ACE) unit (13,14), the Delirium Intensive Care unit (14), Delirium and Falls teams (15–17), subacute care and the Geriatric Evaluation and Management units (18–20), PACE programs (21), and enhanced home and nursing home care (22–25). The success at demonstrating that these programs improve quality of care (evidence-based medicine) has unfortunately, not been mirrored by the ability to have these innovative programs widely adopted due to the “eminence”-based medicine of our colleagues coupled with administrative medicine. It is time for geriatrics to agitate for the introduction of evidence-based programs that work into all hospitals and long-term care systems.

Coupled with this is the need to introduce the computerized medical record, as has been so superbly pioneered by the Veterans Administration (26), and is outlined in detail in a second article in this issue (2). The interactive knowledge of modern medicine greatly exceeds the neuronal power of the unaided human mind, making computers an essential part of quality health care. While we have come a long way since 1943, when Thomas Watson, the chairman of IBM, felt that there would not be a need for more than 5 computers, it is amazing that interconnected computerized records are not available in all health care systems. Those who feel that this will make individual health records less secure should balance this against the killing fields of modern computerless records and drug prescribing systems. Computers coupled with critical pathways developed especially for older persons such as Glidepaths (27) will greatly improve health care. Bar-coding technology avoids drug misidentification errors.

Geriatricians were among the first to embrace the move of Deming’s Continuous Quality Improvement (CQI) principles from industry to medicine (28–30). Many of these principles have become entrenched in the much-beleaguered nursing homes, but have yet to become a part of general hospital and outpatient care (31,32). Real-time data gathering, analysis, and feedback, with concentration on the one or two factors most responsible for the error, would rapidly improve care. The scientific basis of this approach has been ably pioneered by Schnelle and his colleagues (33–37). It does not take the wizardry of Harry Potter to curb errors, but rather the “magic” of data collection, analysis, and self-correction in a timely way. This system is much preferred to the books of data that are collected for the Joint Committee on Accreditation of Health Care Organizations and never see the light of day within the hospital.

An important role for geriatricians is the ability to see syndromes that develop or worsen because of medical errors of omission or commission. As Dennis Sullivan and colleagues (38) pointed out, many older persons in hospital are starved, allowing malnutrition to become the true skeleton in the hospital closet. Undernutrition leads to a variety of problems in older persons from peripheral edema (often mistaken by internists and cardiologists for heart failure) to anemia, immune dysfunction, nosocomial infections, hip fracture, and death (39–43). Frailty syndromes can often be prevented by getting older persons out of bed and introducing early physical therapy and exercise programs in hospital (44–49). Mobility impairment represents one of the major criteria for poor outcomes in older persons (50–52). Physical restraints have been shown to increase injurious falls and kill older persons, yet they are...
still widely used—the concept of “dissent and you will be handed a restraint” remains widely prevalent (53). Urinary catheters are often used when frequent toileting would be appropriate. Urinary catheters are not only a major cause of nosocomial infections and death, but also represent a 1-point restraint (54). While all pressure ulcers are not avoidable (55), recognition of those at risk (56) and careful attention to reduce risk factors can limit their occurrence (57).

Polypharmacy is rampant among older persons (58). The use of many of these drugs has a questionable evidence base as recently pointed out by Goodwin, in the case of antihypertensives in octogenarians (59), although his viewpoint was vigorously contested by others (60–67). Geriatricians can also recognize the potentially dangerous effects of multiple drugs with anticholinergic effects leading to an excess cholinergic load and, therefore, delirium (68–70). The importance of recognizing the changes in drug distribution, metabolism and clearance, and altered pharmacodynamics in older individuals cannot be overstated. Careful attention to drug–drug interactions, such as avoiding hyperkalemia associated with the combination of angiotensin-converting enzyme inhibitors and a potassium-sparing diuretic, that may be more common in older persons, is essential (71). Errors of omission (failure to diagnose) often lead to poor outcomes. Depression leads to an increase in cardiovascular disease, poor compliance, particularly poor outcomes in older persons with diabetes, and an increased mortality (72–76). Despite this, it is often underdiagnosed and poorly treated in older persons (77). Mild cognitive impairment is another condition that often goes underrecognized and may lead to poor outcomes if not detected (78,79). Osteoporosis is extremely poorly recognized and treated even in persons who have had a hip fracture (80). The mnemonic DR IATROS is a useful checklist that can be reviewed on a daily basis by geriatricians and others on the interdisciplinary team to identify and avoid preventable negative consequences of hospital care (Table 1).

Another area where geriatricians need to stand up and be heard is in the arena of antiaging medicine. While they need to speak out clearly about the numerous money-making schemes found under the rubric of antiaging medicine, geriatricians also need to recognize when complementary medicine performs as well as mainstream medicine (81,82).

So, while “to err is human and forgive is divine,” geriatricians need to take a leading role in helping to curb errors in the many arenas in which we practice. Unfortunately, to do this well we need to be allowed to recognize our errors, which means that lawyers need to cloak themselves in a divine light and learn to forgive rather than to rush to money-making judgments that do nothing to improve care for our older population. The Talmud tells us that “he who saves one life . . . is as if he saved the entire world,” but equally warns us that the person who sees an ill (evil) being done, and does nothing about it, is more guilty than the person who committed the evil (error). It is time that all of us involved in health care of the older person step forward and demand medical excellence as is now achievable in the information age.

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REFERENCES


Table 1. DR IATROS Mnemonic

| Drugs: | 1. I have reviewed the M.A.R. today. |
|        | 2. I know the reason for each drug and those reasons are appropriate for this patient. |
|        | 3. I have looked for ADEs today. |
| Restraints: | 1. I have not ordered or allowed any physical restraints for this patient. |
|        | 2. The team has tried all nonpharmacological approaches before using pharmacological restraints. |
|        | 3. If pharmacological restraints have been used, the lowest dose possible was chosen. |
| Infection: | 1. Patient does not have an indwelling urinary (Foley) catheter. (Only used for urinary retention, which cannot be managed by straight catheterization). |
|        | 2. I have checked for sites of nosocomial infection (e.g., IVS, skin). |
| Altered Mental Status: | 1. I have assessed this patient for delirium today (Positives: disorganized/incoherent thinking, level of consciousness abnormal, attention deficit, fluctuation, acute changes). |
| Therapy: | 1. Patient is not on bedrest. |
|        | 2. Physical therapy has evaluated patient during this admission. |
| Retention of urine or stool: | 1. Patient does not have urinary retention. Last BM: ______. |
| Overzealous labeling: | 1. What was this patient’s status (functional, mental, etc.) before s/he became sick? |
|        | 2. Depression is not normal. |
|        | 3. What would it take to get this patient back to the way they were before? |
| Starvation: | 1. I have considered whether or not the patient is malnourished. |
|        | 2. Patient is not on a restrictive diet. |
|        | 3. I have been careful with “NPO” orders. |
62. Harris TB. Aging well and aging poorly: primary and secondary low blood pressure [Commentary. Goodwin JS. Embracing complexity: