

The Value of Targeted Case Management During Transitional Care

Peter A. Boling, MD

AFTER ESTABLISHING A LEGACY OF SUCCESS THROUGH the ascendancy of acute care and biomedical interventions during the past half century, medicine is entering an era of chronic disease management. As the United States now grapples with the burgeoning needs of an aging society and upwardly spiralling health care costs, new strategies for organizing health care are essential. In this issue of THE JOURNAL, Naylor and colleagues¹ present findings from a randomized trial that demonstrates the effectiveness of 1 such strategy.

Within any population, a small subset of patients incurs most of the episodes of serious illness and generates a large fraction of total medical costs.²⁻⁴ Also, patients who are hospitalized once are more likely to have readmissions, although it is difficult to predict which specific patients will be involved.⁵⁻⁹ These concepts are particularly germane in geriatrics because the higher prevalence of serious chronic illness drives more utilization of all health services.

Naylor et al have convincingly shown that focused, short-term case management around the time of hospital discharge can dramatically reduce subsequent readmissions and total hospital days for a selected group of elderly patients. One of the main principles tested in their study is the value of continuous care during transitions between settings of care and times of medical instability. Care continuity is important,¹⁰ and discontinuity is a weakness in US health care delivery, one that is perpetuated by funding mechanisms that do not align the interests of health care personnel in various settings.

The effects of payer mix also must be considered in interpreting the findings of this study. The main outcome of the intervention was a reduction in readmissions. This result probably is better for patients, and certainly is better for the Medicare budget, but the strategy might appeal less to a hospital manager competing in an environment dominated by diagnostic related groups in which readmissions generate new revenue. Conversely, when financial risk increases, as in some Medicare health maintenance organization contracts, or the underfunded care of the poor at public hospitals and many academic health centers, administrators might readily espouse a case management model with a similar focus.

As the authors note, their findings also suggest that effective case management does not have to focus on 1 particular disease. Previous work has shown value in selected disease-specific case management strategies,¹¹ and such programs have proliferated.¹² However, geriatric care is inherently filled with the crossing currents of comorbid illnesses and many patient care situations do not lend themselves as easily to a disease-specific approach.

Naylor et al also found that the effect of a 1-month intervention appeared to persist through the 6-month study period. The authors speculate that the intervention improved the ability of high-risk elders to cope with medical problems and disabilities. If so, this is encouraging, and is consistent with findings in another study that used nurse practitioners in a public health, preventive care model and reduced long-term nursing home stays for elderly patients.¹³ Empowering patients and caregivers is a popular and prudent strategy for the coming era of constrained medical resources.

Several caveats are needed regarding the study by Naylor et al. First, it is unclear whether control group patients had access to a system of continuous care; if not, this aspect could limit generalizability. Also, because the study was confined to 2 urban hospitals in a single market, additional studies are needed to confirm the applicability of the findings elsewhere. Second, mental status test scores suggest that this study population was cognitively intact; whether a similar intervention would be as effective in patients with cognitive impairment is unknown.

Several factors may have enhanced the effectiveness of the intervention nurses. The total number of nurse home visits was similar in the 2 groups when visits by intervention advanced practice nurses and home health agency nurses were combined. Yet, control patients had more readmissions. Naylor et al attributed this difference to the broader clinical reach of the gerontologic advanced practice nurses. This may well be a factor and confirms my 12 years' experience working with nurse practitioners in a hospital-based medical home care practice. However, it is also possible that the involvement of the advanced practice nurses during both inpatient and outpatient phases of care, and probably their easier access to other medical care managers (eg, physicians) during the transition, might also have enhanced the intervention nurses' impact.

Author Affiliation: Division of General Medicine, Virginia Commonwealth University, Medical College of Virginia, Richmond.

Corresponding Author and Reprints: Peter A. Boling, MD, Division of General Medicine, Virginia Commonwealth University, Medical College of Virginia, PO Box 980102, Richmond, VA 23298-0102 (e-mail: pboling@hsc.vcu.edu).

See also p 613.

When considering patient selection criteria and care planning, clinicians must further recognize the importance of having an experienced team. Naylor et al have spent at least 2 decades in this field. Comparing this study with their earlier work,¹⁴ it appears that results improved when the intervention was lengthened from 2 to 4 weeks and home visits were added. Since it is hard to predict which patients will continue to have an unstable course, one wonders whether continued involvement would have additional value. More studies are needed to address this question.

The need for improved discharge planning and postacute care management has been well recognized,^{6,15} yet limited medical oversight and lack of active physician participation during transitional care and ongoing chronic care remain a serious problem.¹⁶ Efforts must extend beyond simply creating

hospital discharge plans. Acute care must be truly linked with postacute care. Naylor et al show that value is gained when medical decision makers, in this case advanced practice nurses, work closely with patients, caregivers, and other practitioners during the transition, then visit patients' homes and maintain continuity. This solid case management connection also promotes efficiency by allowing many problems to be handled by telephone. Integration into the care process creates the opportunities for effective intervention.

Finally, this study recalls important observations drawn from large community care demonstrations in the 1970s and 1980s. To be most cost-effective, interventions must be targeted to specific populations and efforts must be made to control the ongoing cost of interventions.¹⁷ Those seeking to replicate this approach should heed these observations.

REFERENCES

1. Naylor MD, Broton D, Campbell R, et al. Comprehensive discharge planning and home follow-up of hospitalized elders: a randomized clinical trial. *JAMA*. 1999; 281:613-620.
2. Garfinkel SA, Riley GF, Iannacchione VG. High-cost users of medical care. *Health Care Financing Rev*. 1988;9:41-52.
3. Alexandre LM. High-cost patients in a fee-for-service medical plan: the case for earlier intervention. *Med Care*. 1990;28:112-123.
4. Anderson GF, Steinberg EP. Hospital readmissions in the Medicare population. *N Engl J Med*. 1984;311:1349-1353.
5. Zook CJ, Savickis SF, Moore FD. Repeated hospitalization for the same disease: a multiplier of national health care costs. *Milbank Q*. 1980;58:454-471.
6. Eggert GM, Friedman B. The need for special interventions for multiple hospital admission patients. *Health Care Financing Rev*. 1988(suppl):57-67.
7. Corrigan JM, Martin JB. Identification of factors associated with hospital readmission and development of a predictive model. *Health Serv Res*. 1992;27:81-101.
8. Waite K, Oddone E, Weinberger M, Samsa G, Foy M, Henderson W. Lack of association between patients' measured burden of disease and risk for hospital readmission. *J Clin Epidemiol*. 1994;47:1229-1236.
9. Chin MH, Goldman L. Correlates of early hospital readmission or death in patients with congestive heart failure. *Am J Cardiol*. 1997;79:1640-1644.
10. Wasson JH, Sauvigne AE, Mogielnicki P, et al. Continuity of outpatient medical care in elderly men. *JAMA*. 1984;252:2413-2417.
11. Rich MW, Beckham V, Wittenberg C, Levin CL, Freedland KE, Carney RM. A multidisciplinary intervention to prevent the readmission of elderly patients with congestive heart failure. *N Engl J Med*. 1995;333:1190-1195.
12. Fonarow GC, Stevenson LW, Walden JA, et al. Impact of a comprehensive heart failure management program on hospital readmission and functional status of patients with advanced heart failure. *J Am Coll Cardiol*. 1997;30:725-732.
13. Stuck AE, Aronow HU, Steiner A, et al. A trial of in-home comprehensive discharge assessments for elderly people living in the community. *N Engl J Med*. 1995; 333:1184-1189.
14. Naylor M, Broton D, Jones R, Lavisso-Mourey R, Mezey M, Pauly M. Comprehensive discharge planning for the hospitalized elderly: a randomized clinical trial. *Ann Intern Med*. 1994;120:999-1006.
15. Potthoff S, Kane RL, Franco SJ. Improving hospital discharge planning for elderly patients. *Health Care Financing Rev*. 1997;19:47-72.
16. Boling PA. *The Physician's Role in Home Health Care*. New York, NY: Springer Publishing Co Inc; 1997.
17. Weissert WG. Seven reasons why it is so difficult to make community-based long-term care cost-effective. *Health Serv Res*. 1985;20:423-433.

The Challenges of Recognizing Child Abuse Seeing Is Believing

John M. Leventhal, MD

ALMOST 4 DECADES HAVE PASSED SINCE KEMPE AND COLLEAGUES¹ published in THE JOURNAL their landmark description of the battered child syndrome. There were 2 major findings in that study. The first was a clinical description of children who had been physically abused by their parents. Although the abuse and misuse of children had been recognized for centuries^{2(pp3-28)} and radiographic findings in children thought to be caused by deliberate injuries had been described,^{3,4} publication of the article by Kempe et al¹ in JAMA made it clear that injuries caused by physical abuse were clinical problems that required the attention of physicians. The second finding was the result of an epidemiological survey in which 749 abused children—many of whom ei-

ther had been killed or had sustained permanent brain damage—were identified by 71 hospitals and 77 district attorneys in the United States. This large number of cases suggested that serious child abuse was unlikely to occur infrequently. However, no one in 1962 would have predicted that in the United States in 1997, almost 3.2 million reports of child maltreatment would be made to child protective service agencies. Of these reports, approximately 1 million were confirmed, including neglect (54%), physical abuse (22%), sexual abuse (8%), emotional abuse (4%), and other (12%).⁵

That parents could physically hurt their children was a frightening notion for clinicians concerned with the health and welfare of children, yet the astute observations and clinical descrip-

Author Affiliation: Department of Pediatrics, Yale University School of Medicine, New Haven, Conn.

Corresponding Author and Reprints: John M. Leventhal, MD, Department of Pediatrics, Yale University School of Medicine, 333 Cedar St, New Haven, CT 06520-8064 (e-mail: john.leventhal@yale.edu).

See also p 621.