Medical Professionalism Under Managed Care: The Pros And Cons Of Utilization Review

Does utilization review hinder effective medical practice? A survey of review firms shows both positive and negative effects.

by Mark J. Schlesinger, Bradford H. Gray, and Krista M. Perreira

PROLOGUE: For years physicians have decried the advance of managed care as jeopardizing their clinical autonomy and attacking the very nature of their profession. One medical journal editor recently wrote: “[L]ike no other issue in recent health care history, the ‘managed care movement’ has captured the attention and kindled the emotions of physicians and patients alike. . . . Wherever colleagues meet, conversation turns first not to the week’s most fascinating case . . . but rather to the threat of economic survival or to cathartic release of agonies of . . . ‘intrusion of case reviewers’ or ‘degradation of fee structure’.” In an extensive survey of utilization review firms, the authors of this paper find that managed care can both undermine and reinforce key professional norms.

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ABSTRACT: We contend that the full consequences of managed care for American medicine and health care professionals can be more fully understood if strategies for managing care are identified—in particular, strategies for the administrative oversight of professional decision making. In this paper we apply this perspective to the study of third-party utilization review, making use of a national survey of firms contracting to provide prior authorization for hospitalization in 1992. Survey data suggest that (1) existing approaches to utilization review differ greatly among review firms; (2) review practices that might improve agency and accountability seem to be overlooked by most review firms; and (3) a large number of review firms employ practices that undermine professional autonomy in seemingly inappropriate ways.

The spread of managed care is profoundly altering how the American public and policymakers think about the health care system. Perhaps nowhere have the changes been as dramatic as in the roles and expectations of health care professionals. Of pronounced concern is utilization review, which typically is portrayed as undermining the medical profession by unduly standardizing medical practices or by creating excessive distractions and burdens for clinicians. However, apart from warnings by medical ethicists, these concerns have received surprisingly little attention from the health policy community and have been virtually ignored in empirical research. The analyses of utilization review that do exist largely ignore the potential for external review to reinforce, rather than undermine, professional responsibilities. This paper is intended to bring new evidence to bear on these issues and provide a more balanced portrait of the costs and benefits of contemporary review practices.

Implications For Professional Autonomy

To assess the full implications of utilization review for the medical profession, it is essential to more carefully define the central concept of professional autonomy, which has in past writings about managed care been used “with great rhetorical flourish and lack of precision,” referring to a variety of decisions and decisionmakers. By more carefully parsing out the various aspects of autonomy, it is possible to more sensibly study the effects of managed care and understand why some observers report a sharp decline in medical autonomy, while others contend that it remains strong.

Perceived threats to autonomy. One can identify in the literature four distinct ways that autonomy is thought to be threatened by the spread of external review. First, external review raises issues of control and challenges the authority of the medical profession. The spread of utilization review is viewed as undermining the medical profession’s ability to establish the rules under which its
members practice. Second, paperwork and other bureaucratic requirements of external review are seen as distracting physicians from their basic mission of patient care. This concern with intrusiveness in part reflects threats that are more psychological in nature, as “physicians are bombarded by a wide variety of differing (and often inconsistent) and what appear to them to be irrational requirements.” Taken together, these factors are thought to erode professional norms as American physicians become the most “second-guessed and paperwork-laden physicians in western industrialized democracies,” the lifeblood of the medical profession draining away from the accumulated wounds of millions of tiny paper cuts.

Third, medical autonomy is seen as threatened by the protocols that managed care uses to standardize treatment. Under this scenario, external review of clinical decisions encourages a style of medical care in which the idiosyncratic needs and circumstances of individual patients are overlooked, and each clinician is forced to practice “cookbook medicine.” Finally, there are fears that physicians’ close and continued associations with business enterprises will encourage the substitution of entrepreneurial for “professional” values, where the latter are characterized by a combination of scientific rigor and beneficence toward individual patients.

Reinforcement of professional norms. To focus only on the aforementioned threats to professional autonomy, however, is to overlook other external review practices that may bolster the legitimacy of the medical profession. The freedom that medical professionals are allowed is based on a collective expectation that physicians will adhere to certain ethical norms and practice in a consistently competent manner. We group these norms into two broad categories. The first, termed “accountability,” includes efforts by the profession to monitor provider performance and to eliminate questionable practices or incompetent practitioners. The second, termed “agency,” includes physicians’ efforts to protect the interests of individual patients, in part by educating those patients.

Some doubt physicians’ adherence to either accountability or agency. The growth of managed care has been directly attributed to “medicine’s abuse of its trust and stewardship responsibilities,” reflected in part by the profession’s apparent willingness to ignore questionable clinical practices: “So-called self-regulatory activities by physicians are afflicted with epidemic timidity when faced with a real challenge.” Reflecting these and other concerns, over the past three decades public confidence in the medical profession has sharply declined in both absolute terms and relative to confidence in other societal institutions. External review could, if appropriately
pursued, help to restore public confidence by encouraging physicians to think more carefully about treatment options and to discuss these options with their patients. Review also may enhance accountability if inappropriate practices are identified and reported to state licensing boards, which historically have been hampered by the lack of “sufficient information about what constitutes appropriate practice.” Managed care plans also may substitute for physician actions by directly educating patients about treatment options or alerting them to clinicians’ problematic practices.

However, the realization of these potential benefits depends on review firms’ taking a proactive role in promoting quality of care, a role that may not be rewarded financially and that may entail challenging individual clinicians’ practices in particularly public ways. In the absence of effective oversight to hold review firms themselves accountable to the public interest, these practices may occur infrequently. There are, therefore, reasons to be concerned about both the potentially negative effects that external review is having on medical professionalism as well as the potentially positive effects that may never be realized. To understand the extent and ways in which each of these effects is found in practice, it is critically important to understand the strategies that utilization review firms are pursuing.

A Survey Of Review Practices

We developed a survey instrument to study firms that contract to provide utilization review to purchasers, insurers, and some health maintenance organizations (HMOs). Although this is only one sector of the managed care industry, it has a number of characteristics that make it ideal for exploring the relationship between managed care and medical professionalism. First, it affects the medical care of most Americans—an estimated 122 million people in 1993. Second, third-party authorization of medical decisions perhaps most clearly embodies what many physicians fear about managed care: its intrusiveness into clinical settings and its potential for inappropriately standardizing treatment practices. Third, utilization review is found in various forms throughout the managed care industry and has widespread implications for the practice of American medicine.

We surveyed by mail utilization review organizations operating in September 1992, focusing solely on those that contracted with employers or insurers to provide prior authorization requirements for hospitalization. The survey, which involved an extensive follow-up effort, yielded data from 109 firms, a response rate of 64 percent. Comparison of respondents and nonrespondents based on characteristics reported in managed care directories (ownership, size, and
(16) age) suggests that responding firms were representative of the industry as a whole, although slightly larger in scale. Typically, the person completing the survey was either the chief executive officer, the vice-president, or the chief administrative officer of a firm.

**Measures of autonomy.** The survey collected data on the four threats to autonomy discussed earlier: (1) challenges to authority over the review process and criteria, (2) intrusiveness into clinical decision making, (3) standardization of the treatment under review, and (4) the ethos of the review organization. The survey also included measures of ways in which review practices might affect professional agency and accountability (Exhibit 1).

The survey included three types of measures of physician authority in the utilization review process: (1) the influence of the utiliza-

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**EXHIBIT 1**

**Impact Of Utilization Review On Professional Autonomy**

<table>
<thead>
<tr>
<th>Threat to professional autonomy</th>
<th>Specific measures used in this study</th>
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<tbody>
<tr>
<td>Challenges to authority</td>
<td>Influence of medical director and staff on policies and practices at review organization</td>
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<tr>
<td></td>
<td>Influence of standards developed by medical societies on review criteria used by firm</td>
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<tr>
<td></td>
<td>Influence of changing patterns of clinical practice on review criteria</td>
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<td></td>
<td>Influence of patient complaints on review criteria</td>
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<td></td>
<td>Influence of employers and other clients on review criteria</td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>Extent to which clinicians are required to submit documentation for review process</td>
</tr>
<tr>
<td></td>
<td>Percent of admission requests that are initially denied</td>
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<tr>
<td></td>
<td>Willingness of URO to adapt review protocols in response to clinicians’ complaints</td>
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<tr>
<td></td>
<td>Extent to which nonphysicians are allowed to deny authorization</td>
</tr>
<tr>
<td>Standardization</td>
<td>Extent to which review criteria are adjusted for differences in local practice norms</td>
</tr>
<tr>
<td></td>
<td>Extent to which local norms influence exceptions to review criteria</td>
</tr>
<tr>
<td></td>
<td>Extent to which clinician adamancy justifies exceptions to review criteria</td>
</tr>
<tr>
<td></td>
<td>Extent to which physician reviewers are allowed to deviate from formal protocols</td>
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<tr>
<td>Scientific ethos</td>
<td>URO develops its own review criteria</td>
</tr>
<tr>
<td></td>
<td>URO has received research grants from foundations or government</td>
</tr>
<tr>
<td></td>
<td>URO adapts review criteria in response to new findings in medical literature</td>
</tr>
</tbody>
</table>

**SOURCE:** Authors’ data.

**NOTE:** URO is utilization review organization.
tion review organization’s medical director and staff physicians over its operation; (2) the impact of the profession as a whole on review practices (measured by the extent to which the firm adapts its review criteria to “standards developed by professional organizations” or evidence of changing medical practices in the field); and (3) the influence of groups that might challenge traditional medical authority, including patients seeking more control over their own medical care and purchasers wishing to limit their financial obligations. Intrusiveness also was measured in several ways. These included administrative burdens (the proportion of conditions for which the utilization review organization requires that the clinician submit documentation of results from diagnostic tests), the proportion of hospitalization requests that are initially denied in the review process, and psychological irritants, including whether initial denials of payments can be made by personnel without a medical degree, and the extent to which the utilization review organization adjusts its review process in response to clinicians’ complaints.  

The extent to which a review organization is seen as promoting “cookbook medicine” depends in part on the review criteria that it formulates and in part on how those criteria are used in the review process. The more a firm attempts to impose uniform national criteria, unadjusted for regional or individual differences in treatment practices, the more review will be seen as “standardizing” clinical practice. This is measured in the survey by three aspects of the review process: whether review criteria are adjusted to reflect local treatment norms, how frequently reviewers allow exceptions on the basis of local norms, and how frequently they make exceptions in response to particularly adamant requests from clinicians. Standardization also depends on the discretion the utilization review organization allows its reviewers, measured here by the relative importance of reviewers’ discretion compared with formal criteria in determining whether to approve hospitalization for six different conditions or procedures.

Finally, the orientation of the review organization toward a “scientific” ethos is measured by three variables. The first is based on the extent to which the organization develops its own review criteria, as opposed to simply buying or borrowing criteria developed by others. Utilization review organizations that create their own criteria can be seen as improving medical knowledge by refining standards for clinical practice. The second measure reflects whether the review firm has received grant support from a foundation or a government agency. This captures the extent to which the firm is developing new knowledge and is willing to share it with the medical community (the usual requirement for grant-funded research). The
third measure is based on whether respondents report that their firm adapts its review criteria to new findings reported in the medical literature, a crucial part of the scientific ethos of the profession.

**Measures of accountability and agency.** Most generally, the impact of external review on accountability and agency can be measured in two ways: first, by the impact of review on clinicians’ actions related to agency and accountability; second, by the role that utilization review organizations themselves play in promoting these two goals. This study focuses on the extent to which actions by these organizations might augment traditional professional roles in promoting accountability and agency. For accountability, this involves review firms’ efforts to detect or eliminate harmful medical practices. For agency, this involves firms’ providing patients with information about their treatment that would allow them to be involved more effectively in decision making.

Actions by the review organization to enhance accountability are measured in four ways. First, organizations were asked whether they profiled individual physicians or hospitals for adverse outcomes. Second, the survey asked about efforts—including individualized reports, standardized videos, and classes—to improve practice by educating physicians “regarding appropriateness of care.” Third, the survey asked about firms’ policies when reviewers identified “unnecessary or inappropriate care that involved significant risks for patients.” Respondents were asked how frequently they reported instances to various actors, including their state medical board. Finally, we ascertained respondents’ stance on regulations that would require reporting such cases to a licensing board.

Reporting dangerous practices to a state review board is not likely to allow timely notification to protect the patient, so it does not reflect a concern for agency. However, review organizations may take other actions to protect patients. Respondents were asked how frequently either episodes of risky inappropriate treatment were “discussed with patient or family” or patients were “advised to consult another physician,” either of which could protect otherwise uninformed patients. Other agency-related practices include efforts by review organizations to educate patients “regarding appropriateness of care issues” and to routinely contact patients or family members after hospital discharge. The latter practice permits an organization to assess the consequences of treatment for the patient.

**Results And Statistical Analyses**

To accurately portray the heterogeneity of the review industry, we characterize the practices of the review firms operating at the lowest and highest decile in the range for each measure, as well as the
average score for the industry as a whole (Exhibit 2). Review practices vary considerably. A number of utilization review organizations do little to threaten physician autonomy; other firms represent substantial threats to professional prerogatives, particularly in terms of intrusiveness and standardization.

There is also considerable variation in the outcomes from reviewing requests for hospitalization. Some review organizations appear to be relatively nonintrusive: 17 percent have final denial rates (after any appeals) of 1 percent or less; in 15 percent of all review programs, clinicians who appeal a denial are successful more than half the time. Other review organizations are far more challenging to deal with. Almost 30 percent of the responding firms reported denial rates of 10 percent or higher. For more than a third of all utilization review organizations, no more than 2 percent of initial denials were successfully appealed.

Authority/autonomy of the medical profession. Responses on this survey suggest that as of 1993, review practices threatened autonomy most frequently through standardization and least frequently through challenges to physician authority. However, even the most prevalent practices that may undermine physician auton-

<table>
<thead>
<tr>
<th>Measures of review practices</th>
<th>Score at 10th percentile</th>
<th>Mean score</th>
<th>Score at 90th percentile</th>
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<tbody>
<tr>
<td><strong>Physician authority</strong></td>
<td></td>
<td></td>
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<tr>
<td>Influence of medical director and physician reviewers</td>
<td>3.0</td>
<td>3.75</td>
<td>4.5</td>
</tr>
<tr>
<td>Influence of prevailing clinical practice</td>
<td>2.0</td>
<td>3.80</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Intrusiveness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial denial rate</td>
<td>1.0%</td>
<td>9.9%</td>
<td>21.4%</td>
</tr>
<tr>
<td>Proportion of cases in which clinicians are required to submit documentation</td>
<td>16.6</td>
<td>60.1</td>
<td>91.7</td>
</tr>
<tr>
<td><strong>Standardization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discretion allowed physician reviewers</td>
<td>1.8</td>
<td>3.3</td>
<td>5.0</td>
</tr>
<tr>
<td>Influence of local norms of practice</td>
<td>1.3</td>
<td>2.74</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Scientific ethos</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Received research grant in last three years</td>
<td>0.0%</td>
<td>11.0%</td>
<td>100%</td>
</tr>
<tr>
<td>Adapts review criteria in response to findings in medical literature</td>
<td>3.0</td>
<td>3.9</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Source: Authors' analysis of survey data.*

*1 = not important; 2 = minimally important; 3 = somewhat important; 4 = very important; 5 = critically important.*

*1 = written criteria dominate; 3 = criteria and discretion given equal weight; 5 = physician reviewer’s judgment dominates.*
Challenges to physician authority. The reported practices of most review organizations show considerable deference to physicians’ authority, whether in response to physicians who are affiliated with the firm, prevailing clinical practices, or standards developed by professional associations. In addition, most review organizations are strongly set within the scientific ethos of the medical profession: Two-thirds develop their own review criteria, and an equal number rely heavily on the medical literature when adapting their review criteria over time. Correlations among measures of authority are low, however, ranging from 0.04 to 0.34. This suggests that organizations that preserve some aspects of physician authority do not necessarily protect all aspects. The survey also reveals that while firms are responsive to physicians, they also respond to other interests, particularly those of purchasers and other clients. Review firms are evenly divided among those that give purchasers “substantial” influence over review criteria, those that allow clients “some” influence, and those for which client influence is no more than minimal.

Challenges to other aspects of clinical autonomy. For each of the measures of intrusiveness, roughly a third of all review firms intrude into clinical autonomy. Thirty-one percent of the firms require extensive documentation of diagnostic tests. Thirty-five percent of respondents reported that they do little to adapt review protocols in response to clinicians’ complaints. More than 37 percent authorize nonphysicians to make initial denials. A larger segment of the review industry acts to standardize clinical practices. Only about 20 percent of respondents reported that they regularly take into account geographic variation in treatment practices or clinicians’ adamancy in their review process. Interestingly, however, neither intrusiveness nor standardization was correlated with the amount of discretion allowed to physician reviewers. Forty percent of all respondents allow physician reviewers considerable discretion in applying review criteria.

A taxonomy of utilization review strategies. To identify the strategies that review organizations use for dealing with physicians, we used a factor analysis of the variables listed in Exhibit 1. Maximum likelihood factor analysis identified four distinct factors, or strategies, involving relationships between the review organization and physicians. The factors remained invariant to various factoring methods, and their interpretation was consistent under various factor rotations. We have given each configuration a distinct label, although these designations are somewhat arbitrary.

Clinical “autonomy-preserving” utilization review organizations
are strongly oriented toward protecting the prerogatives of physicians, both those at the clinical level and those involved in the review process. However, they have no evident orientation to a scientific ethos, nor do they appear to preserve much physician authority. They are also the review firms that are most responsive to the concerns of purchasers and the complaints of patients.20 “Authority-preserving” review organizations, in contrast, protect physician authority by responding to collective trends in clinical knowledge, but they are neither positively nor negatively oriented toward the other three dimensions of professional autonomy. “Standardizing” review organizations are most likely to act to transform prevailing clinical practice. Although they respond to the concerns of individual clinicians, they are not supportive of local practice norms, are associated with intrusive review processes, and allow their physician reviewers less discretion than do other review organizations. Interestingly, these are also the organizations in which the medical director and medical staff have the most pronounced influence over organizational policies. “Knowledge-generating” utilization review organizations follow the most strongly scientific ethos and are most likely to receive research grants. They too limit clinical autonomy, rejecting a role for local practice norms and not responding to the concerns of individual physicians. Unlike standardizing review firms, however, they give considerable discretion to their physician reviewers and are least likely to allow nonphysicians to deny authorization.

Individual review organizations may pursue more than one of these strategies. There is a positive correlation between standardizing and knowledge-generating orientations among review firms, as well as a positive relationship between authority- and autonomy-preserving review firms. Knowledge-generating and autonomy-preserving stances are the only two that appear to be incompatible with one another, since review organizations that favor one approach are less likely than average to favor the other.

Although relatively few review organizations fit exclusively into any one of these categories, one can classify review organizations based on their primary orientation (that is, the combination of variables on which they have the highest scores). This provides a typology of the utilization review industry. Based on the survey responses, we classify 40 percent of the organizations as primarily autonomy-preserving, 28 percent as authority-preserving, 14 percent as standardizing, and 25 percent as knowledge-generating.

These characterizations are based on the ways in which the utilization review process operates. The relationship between these process measures and outcomes of the review is not always intui-
tive. Organizations that most preserve clinical autonomy are not those with the lowest denial rates: They reject on average 6.7 percent of requested hospitalizations. Both authority-preserving and knowledge-generating review organizations have fewer denials (3.6 percent and 6.2 percent, respectively). Standardizing review organizations have by far the highest denial rates (14.1 percent), averaging almost three times the average for the other firms. The review organizations that emphasize clinical autonomy and physician authority appear to have the most lenient appeals processes (rates of successful appeals of 20.6 percent and 22.0 percent, respectively); standardizing review organizations have half this rate (11.2 percent). The four strategic orientations appear to be unrelated to other outcomes, such as conversions (cases in which the reviewer convinces the clinician to change a request for hospitalization to outpatient treatment, without formally denying payment) or withdrawals (cases in which an initial request for hospitalization is dropped before the organization formally denies or approves the request).

**Effects On Accountability And Agency**

With substantial variation among firms, a relatively small number aggressively pursue either agency or accountability practices, and virtually no firms address both of these concerns.

- **Accountability.** The review process has the potential to complement efforts by the medical profession to police its members. Respondents reported on average that they identify “unnecessary or inappropriate care that involved significant risks for patients” in 1 to 3 percent of the cases that they reviewed in the past year.21 Slightly more than half of all respondents indicated that they profile patterns of adverse events for either individual physicians or hospitals. But this potential is rarely realized. Utilization review firms appear to be quite unreliable at reporting information about problematic practices to professional regulatory bodies. Only two of 109 firms routinely report cases of inappropriate and risky treatment to the state medical board, another 20 percent do so some of the time, and 40 percent more do so “in exceptional cases.” However, half routinely discuss such cases with the associated hospital.

Ironically, the failure of most review organizations to routinely report problematic treatment to licensing boards does not apparently reflect principled opposition to this role. Two-thirds of respondents supported federal regulations that would mandate reporting to the state medical board; only 10 percent strongly opposed such regulations.

Nor do most review organizations appear to be making concerted efforts to educate physicians to improve the quality of the treatment
that they review. Apart from the contacts they have with physicians as part of the review process, few organizations disseminate information about appropriateness of care. A quarter of the firms prepare individualized utilization reports for physicians whose care they review, 10 percent disseminate information in the form of video or written material, and 18 percent hold classes for physicians.

**Agency.** The agency-related practices of review organizations appear to be more substantial, although they may create tensions for the treating physician. Having identified cases of inappropriate and risky treatment, 16 percent of respondents routinely contact the patient or family, and 10 percent routinely suggest that the patient consult another physician. A quarter of the organizations contact patients in these cases some of the time; another 25 to 30 percent do so in exceptional cases. However, about a third of the organizations never contact patients under these circumstances.

Utilization review organizations are somewhat more involved in educating patients about appropriateness of care than they are in educating physicians. Roughly half of the review firms mail educational material to patients, and an equal number have telephone advisory systems for patients. About half of the firms routinely contact patients by phone, 40 percent of these after a hospitalization. (Talking with patients after discharge is strongly and positively correlated with contacting patients about inappropriate, risky treatment.) About 10 percent of the plans have more elaborate educational methods, such as videos or classes for patients.

**Relationship of review strategies to accountability and agency.** Generally, the individual review practices (our measures of support for professional autonomy) are unrelated to the policies and practices affecting accountability or agency. Because we know that review practices tend to cluster into distinct strategies, it is useful to explore whether these more aggregated patterns are related to either accountability or agency. To assess these relationships, we used the four measures of accountability and four measures of agency as dependent variables in eight regressions. The strategy scores for each review organization (representing their stance toward physician autonomy) were used as explanatory variables in these regressions. To control for other characteristics of review organizations that might also affect their practices, we included as other explanatory variables measures of the age and size of the organization, characteristics of the purchasers of utilization review services, and the diagnostic specialization of the organization.

The results from this analysis are presented in Exhibits 3 and 4. Each bar in these graphs reflects the predicted level of agency and accountability for review organizations pursuing each of the four
strategies. To facilitate comparisons across the multiple measures, each is normed as a fraction of the maximum score that the review organization could get for each aspect of performance. As is evident from Exhibit 3, standardizing organizations are much more oriented to accountability in terms of identifying and reporting problematic treatment practices. Knowledge-generating organizations, on the
other hand, are the most oriented to educating physicians. Indeed they are the only review firms to make a substantial effort here. Standardizing organizations are more likely than the average review firm to contact patients on a regular basis, as well as to warn them about inappropriate treatment that might threaten their health (Exhibit 4). Review organizations that preserve clinical autonomy also score relatively high on these measures of patient agency. But knowledge-generating review firms are significantly less likely than are other firms to provide such warnings to patients.

These results suggest that the willingness of utilization review organizations to address issues of accountability and agency can be understood in part by their orientation to professionalism. For example, standardizing review firms, which are the most aggressive at reshaping clinical practices, are also the most active in protecting the well-being of individual patients. Recall that in these firms the medical director and medical staff have unusually strong influence over policies and practices. Physician-controlled firms therefore appear to be consistently more intrusive into clinical practice, although in some cases this has negative connotations, and in others, more potentially positive effects.

Discussion And Conclusion

This paper provides the first nationally representative portrait of the ways in which third-party utilization review relates to various aspects of medical professionalism. Whether these same patterns apply to utilization review set within other forms of managed care is an important question for future research. Whether these practices are beneficial or problematic for society as a whole is also unclear, but they certainly have the potential to transform the ability of physicians to provide medical care. Equally important from the standpoint of patient well-being, contemporary review organizations have done relatively little to promote accountability and agency, although the organizations that follow “standardizing” strategies (only 14 percent of the industry in 1993) are most likely to act in both areas. Somewhat ironically, it is the very review organizations that appear to most threaten clinical autonomy that seem to do best at providing for accountability and agency.

Influences on review practices. It has been argued that external review is particularly likely to undermine professional norms if it is unduly market-driven. To avoid this, the American Medical Association (AMA) has proposed that managed care firms adopt a medical staff structure to protect clinical autonomy. Our findings cast doubt on the wisdom of this proposal. Many of the review organizations that most aggressively restrict clinical autonomy al-
ready have high levels of influence from their medical directors and staff. This was most evident for review firms that were pursuing a strategy of standardization. Nor can threats to clinical autonomy be attributed primarily to pressures from misguided purchasers. Review organizations that reported that they had adapted their review protocols in response to requests from employers or other clients were much less likely than others to engage in intrusive practices or to otherwise compromise clinical autonomy.

This is not to say that structural characteristics of a review organization or the incentives that it faces in the marketplace do not affect review practices. But other factors appear to have an important influence over the choice among the four strategies that we identified earlier. The multiplicity of factors influencing review practices suggests that no simple structural requirements can ensure that external review will not undermine socially valued aspects of medical professionalism.

**Problem areas.** Our findings highlight several areas of utilization management that merit additional oversight. The first is the administration of the review process. About a third of the industry reports successful appeal rates of 2 percent or less. It seems most unlikely that any existing review criteria, however refined, or physician reviewers, no matter how capable, can reliably detect inappropriate hospitalization with this accuracy. In many plans, a number of cases that should be successfully appealed apparently are not, either because the appeals process is flawed or because it requires such time and effort that clinicians simply give up.

A second area of concern is the failure of most review organizations to address issues of accountability and agency. Based on the responses to this survey, we estimate that review firms identify up to 250,000 cases a year in which treatment is inappropriate and poses substantial risk to the patient. Roughly a quarter of all review firms rarely notify any party if they identify cases of this sort. A quarter of survey respondents reported that they had no formal policy of action under these circumstances. The *AMA Code of Medical Ethics* requires that “incompetence which poses an immediate threat to the health of patients should be reported directly to the state licensing board.”24 Similar requirements appear in the ethics manual for the American College of Physicians.25 Even in those review organizations that are most influenced by their medical staff or medical director, such notification is done only infrequently.

Utilization review organizations more frequently engage in practices to educate physicians and patients. However, even the most common of these practices are typically found in fewer than half of the responding organizations. No more than 10 percent of these
organizations are pursuing the full range of educational methods that were included in this survey.

Other aspects of external review raise difficult questions, although they are not as evidently problematic. For example, a number of review firms directly contact patients to determine whether a proposed treatment is appropriate, provide them with information about their treatment options, or assess their experience. Contacts of this sort may lead patients to question the judgment of their personal physician, particularly if the review organization asserts that a diagnosis was inadequate or a prescribed treatment was inappropriate. In cases in which treatment is risky, questions of this sort may be beneficial. In other circumstances, more aggressive efforts by review firms to act as agents for patients may erode the ability of clinicians to be effective agents.26

Complex issues of this sort could be addressed through improved state regulation or by industry self-regulation. Certainly state governments and accrediting agencies have recently made efforts to address the ways in which managed care plans relate to their affiliated physicians.27 However, existing standards focus more on the credentials of reviewers and criteria for the review process than on the extent of professional autonomy or authority within the review organization. Report cards such as the Health Plan Employer Data and Information Set (HEDIS) provide little oversight over how the review process is conducted, although they may provide some clues about its consequences. None of these criteria addresses the ways in which utilization review might improve the prevailing quality of medicine and reinforce professional norms through the mechanisms of accountability and agency measured in this study.

More comprehensive and effectively targeted standards can be devised. What is needed is a regulatory approach that encourages socially beneficial review practices, not simply one that discourages practices that are problematic. Our findings suggest that some regulations in this area would be widely supported, even by the utilization review industry itself. To make effective any approach to overseeing review practices, it is essential to have more regular and reliable information about the process of utilization review. For too long, our impressions of this industry have been based on vague fears and inaccurate impressions. The consequences of external review for medical practice and medical professionalism are too important to allow this to continue in the future.
The research for this paper was completed with support from the Aspen Institute’s Nonprofit Studies Research Fund, the Center on Entrepreneurial Studies at New York University, and the Commonwealth Fund’s Health Reform Project. The project benefited from the assistance of Neil Hollander, Grant Lawless, Alex Rodriguez, Marvin Shapiro, Stephanie Spangler, and Eric Spitzer in pretesting the survey instrument; Tracey Thomas, Lynda Speicher, Allison Wohlen, Jennifer Hillygus, Bonnie Kerker, and Ashley Fox in providing research assistance; and Betsy Bradley, David Mechanic, Nancy Wolff, and other participants in the research seminar at the Institute for Health, Health Care Policy, and Aging Research at Rutgers University.

NOTES


Regarding attention from the health policy community, out of a total of roughly 430 papers appearing in Health Affairs since 1990, sixty-three were largely devoted to managed care. Only one of these—D. Blumenthal, “The Vital Role of Professionalism in Health Care Reform” (Spring 1994): 252–256—focused primarily on the question of professional prerogatives under managed care, although several others—Boyle and Callahan, “Managed Care in Mental Health,” and L.C. Baker and J.C. Cantor, “Physician Satisfaction under Managed Care” (Supplement 1993): 258–270—addressed these issues to some extent.

Studies that examine whether managed care techniques alter clinical decision making include A.L. Hillman, “Health Maintenance Organizations, Fi-
nancial Incentives, and Physicians’ Judgments,” *Annals of Internal Medicine* 112 (1990): 891–893; A.N. DeMaria et al., “Managed Care Involvement by Cardiovascular Specialists: Prevalence, Attitudes, and Influence on Practice,” *Journal of the American College of Cardiology* 23 (1994): 1245–1253; and J.D. Cartland and B.K. Yudkowsky, “Barriers to Pediatric Referral in Managed Care Systems,” *Pediatrics* 89, no. 2 (1992): 183–192. These studies do not, however, differentiate changes that providers consider within the bounds of professional behavior from those that are perceived as violating professional norms. One survey of young physicians asked respondents in managed and unmanaged settings whether their clinical autonomy matched their expectations. Baker and Cantor, “Physician Satisfaction under Managed Care.” Since expectations themselves may be shaped by the managed care environment, the responses did not actually provide much evidence about whether managed care was undermining professional norms.


10. The concept of agency in health care can be traced to Kenneth Arrow’s seminal article, “Uncertainty and the Welfare Economics of Medical Care,” *American Economic Review* 53, no. 2 (1963): 941–973. This introduced notions, which have subsequently been extended to various aspects of health services, that a good agent (physician) makes the same decisions that the patient would make if that patient were well informed. G. Mooney and M. Ryan, “Agency in Health Care: Getting Beyond First Principles,” *Journal of Health Economics* 12, no. 3 (1993): 125–135. Although the application of this principle has been disputed by some medical ethicists, the general need to deal with information asymmetries is widely recognized. See Pellegrino and Thomasma, *For the Patient’s Good*.

11. Hafferty and Wolinsky, “Conflicting Characterizations of Professional Domi-


16. For more details on survey methods and response issues, see Schlesinger et al., “Charity and Community.”

17. The respondents reported documentation requirements for four tracer conditions: hysterectomies, back pain, cardiac catheterization, and adolescent depression.

18. Back pain, hip replacement, coronary artery bypass grafts (CABGs), cataract surgery, adolescent depression, and craniotomies.

19. The consistency of these percentages is potentially deceptive: It is not the same third of the industry engaging in all of these practices. There are very low correlations among these different aspects of intrusion; firms that look problematic to clinicians in some of these dimensions are just as likely as any other review firms to look attractive in others.

20. The factors were fitted using a maximum likelihood method. For a copy of the (varimax) rotated factor pattern for the four groupings, contact Mark Schlesinger at Yale University, Department of Epidemiology and Public Health, School of Medicine, 60 College Street, P.O. Box 208034, New Haven, Connecticut 06520-8034.

21. The average respondent to this survey reviews about 50,000 cases a year. This suggests that each firm on average identifies annually between 500 and 1,500 cases of inappropriate care that pose serious risks for patients. Extrapolating to the industry as a whole, review firms apparently identify between 85,000 and 255,000 such problematic cases each year.

22. Preliminary analyses had shown that these agency and accountability practices were unrelated to other characteristics of the review firm, including whether it was national or regional and whether it provided other utilization review services in addition to prior authorization for hospitalization.


