

Medical and Judicial Perceptions of the Risks Associated with Use of Antipsychotic Medication

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To determine whether occupational perspective influences the decision to prescribe antipsychotic medications, we presented a group of psychiatrists and judges with a hypothetical case involving a potentially psychotic patient. The subjects were asked what probability of drug-induced tardive dyskinesia they would accept in order to prevent psychotic decompensation. The subjects were then asked to estimate the actual probability that tardive dyskinesia would occur if the patient received antipsychotic medications. From the responses to these questions we inferred their treatment decisions. Although the psychiatrists and judges agreed on an acceptable level of risk, they differed significantly in their estimates of the actual risk involved and, by inference, their decisions concerning treatment. Our findings have several implications for adjudication of cases involving treatment decisions and the right to refuse treatment.

One suggested wellspring of the malpractice crisis, as well as of widespread difficulties in communication between the medical and legal professions, is the notion that clinicians and judges may approach problems in patient care differently because of their divergent perceptions of the risks involved. This paper examines empirically how psychiatrists and judges perceive the risks and benefits of prescribing an effective medication with possibly serious side effects.

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While physicians necessarily make risk-benefit decisions prospectively, in deciding whether to prescribe medications,^{1,2} the legal profession is usually involved retrospectively, after a bad outcome, as in the determination of whether a medical decision represented good practice or a deviation from good practice—that is, malpractice. Little information exists on the “set points”^{3,4} of the two professions. In other words, for clinicians and judges, at what point do the perceived risks of a given treatment become “excessive,” so that a decision to proceed with that treatment would constitute a deviation from the standard of care?

To examine this question, we presented a group of psychiatrists and a

group of judges with a clinical vignette concerning the possible use of an anti-psychotic drug that may induce tardive dyskinesia. We questioned the two groups of subjects about their perceptions of the risks involved in prescribing the medication in this case. Specifically, we wanted to know what degree of risk subjects would tolerate to obtain the benefits of such treatment. We expected to find differences in the responses of the two groups, reflecting different perceptions of the risks of treatment in relation to its benefits.

Methods

We presented 70 psychiatrists and 41 judges, all of whom were attending symposia devoted to medicolegal issues, with the following vignette:*

A 20-year-old patient of yours becomes violently psychotic when taking any less than a neuroleptic equivalent of 400 mg of Thorazine. As you know, Thorazine is effective in reducing psychotic behavior, but its continuing use is associated with tardive dyskinesia (involuntary muscle spasm).

The subjects were asked two questions about this case:

1. What probability of tardive dyskinesia would you risk or accept to prevent recurrence of psychosis in this 20-year-old patient?
2. What is the probability that this patient will get tardive dyskinesia if continued on medication?

From the responses to these questions, we obtained three dependent variables for each subject. The response to the

first question provided a measure, from 0 to 100 percent, of the respondent's tolerance of the risk (inducing tardive dyskinesia) in order to obtain the benefit (preventing psychosis) of the treatment. The response to the second question yielded an estimate, from 0 to 100 percent, that the patient would develop tardive dyskinesia if the drug were prescribed as stated in the vignette. We inferred the subject's treatment decision by subtracting the value of the second measure from the value of the first. This third measure represents an adjusted expression of what the individual would actually decide to do, given the perceived risks and benefits of the medication. A positive number indicates that the subject perceives the benefits as outweighing the risks, from which we would infer a decision to prescribe the medication; a negative number reflects the perception that the risks outweigh the benefits, which would be consistent with a decision not to prescribe.

Results

Mean responses to the first question (what probability of tardive dyskinesia respondents would tolerate in order to prevent the recurrence of psychosis) did not differ significantly for the two groups of subjects (psychiatrists: 50.5 percent, judges: 48.1 percent; see Table 1). In other words, the psychiatrists and judges seemed to agree about the value of inhibiting psychosis relative to the risk of side effects.

However, the two groups responded quite differently to the second question, which asked for an estimate of the actual

* It should be apparent that judges and psychiatrists attending a symposium on medicolegal issues may be a biased sample.

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Table 1
Mean Responses as a Function of Profession
(Psychiatrists vs. Judges)

	Value Assess- ment ^a (%)	Probability Assess- ment ^b (%)	Action ^c (%)
Psychiatrists	50.5	25.0	25.5
Judges	48.1	62.5	-14.4

^a "What probability of TD would you risk/accept to prevent recurrence of psychosis in this . . . patient?"

^b "What is the probability that this patient will get TD if medication is continued?" $F(1,92) = 54.2, p < .001$.

^c Computed decision to prescribe: a minus b, $F(1,90) = 29.7, p < .001$.

risk of tardive dyskinesia associated with the continued use of medication. The judges estimated, on average, that the medication carried a 62.5 percent probability of tardive dyskinesia, whereas the psychiatrists gave an average estimate of 25 percent (see Table 1).

The significance of this difference in responses to the second question became clear when we subtracted the percentage value of each individual's response to the second question from the value of the response to the first question. As described above, this yielded a positive or negative number, from which we inferred the subject's treatment decision in the case vignette. As an example, if a subject estimated a 30 percent chance that the neuroleptic would induce tardive dyskinesia in the patient (question 2) and would tolerate a 50 percent chance of complications (question 1), the adjusted expression would have a positive value of 20 (50 - 30). For this subject, the perceived benefits outweigh the perceived risks, suggesting a willingness to prescribe the medication. On the other hand, a subject who estimated a 60 percent risk of tardive dyskinesia yet

would tolerate only a 45 percent chance of complications would have a negative adjusted expression of -15 (45 - 60), indicating that the perceived risk outweighs the perceived benefit and suggesting that this subject would probably not be willing to prescribe the medication.

In fact, these two examples correspond to the average responses by the psychiatrists and the judges, respectively. As Table 2 shows, 87 percent of the psychiatrists in our study (59 of 68) had a positive adjusted expression, suggesting that they felt the benefits of prescribing the neuroleptic in this case outweighed the risks. In contrast, 59 percent of the judges (20 of 34) would probably have been unwilling to prescribe the medication (or, more realistically, to condone its prescription retrospectively) because the perceived risks were too great. (Nine subjects who failed to answer both questions were dropped from the analysis.)

Discussion

In this study psychiatrists and judges differed greatly in their perceptions of the risks associated with antipsychotic medication and, by inference, in their willingness to prescribe such medication. Whereas the psychiatrists estimated a 25 percent risk that neuroleptic

Table 2
Decision to Prescribe by Profession

Decision	Psychiatrists (%)	Judges (%)
To Prescribe	87	41
Not To Prescribe	13	59

Chi-square analysis: $\chi^2 (1) = 20.96, p < .0001$.

medication would induce tardive dyskinesia, the judges' estimate of that risk was 62 percent. Various clinical studies of incidence suggest that the actual probability of tardive dyskinesia is between 5 and 20 percent.^{5,6} The two groups of subjects apparently agreed on a tolerable level of risk, yet the disparity in their perceptions of the actual risk involved suggests that they would have opposing views of the treatment question: whereas the psychiatrists would probably choose to treat the patient, the judges would be likely to forego treatment.

Our data shed light on the problems that emerge when cases of malpractice^{7,8} relating to medications and those involving the right to refuse neuroleptic treatment are adjudicated. If our sample of judges is representative of those who deal with such issues in court, then judges are substantially overestimating the probability that antipsychotic treatment will induce tardive dyskinesia. While agreeing with clinicians on the level of risk that is acceptable in order to obtain the benefits of medication, they may weigh the actual risks and benefits differently. Thus, judges may tend to view clinicians' treatment decisions as reckless.

In an actual malpractice case, of course, expert witnesses can educate both judge and jury on the risks of the treatment in question. Nevertheless, the empirical findings of cognitive psychology^{9,10} indicate that people are reluctant to revise their initial probability estimates.¹⁰ This relative incorrigibility is magnified by another well-established empirical principle: hindsight bias. In

the context of a malpractice suit, brought in the wake of a tragic outcome, it is difficult not to see that outcome as inevitable in retrospect.¹¹

Differences in occupational perspective undoubtedly influence the disparity in risk perceptions between our two groups of subjects. For one thing, clinicians make treatment decisions prospectively, whereas judges hearing malpractice cases must address such decisions retrospectively, after a harm has occurred. Thus, the courts tend to be more attuned to the potential harms of the treatment in question than to its benefits; that is, they are "risk-averse." In addition, the harms of treatment are concrete and therefore more susceptible to courtroom demonstration than the harms of no treatment. One can point out the abnormal movements that characterize tardive dyskinesia, but it would be difficult, and perhaps unethical, to do the same with untreated psychosis. Among the possible harms of withholding neuroleptic treatment for serious mental illness are prolonged hospitalization, stigma, social alienation, loss of employment, and homelessness. Similarly, the benefits of treatment—say, 10 years of living independently in the community without rehospitalization—are less easily demonstrated concretely in court than the harms.

Malpractice cases involving neuroleptic treatment have received considerable publicity recently, with some claims in the millions. Fearful of such litigation, many physicians have altered their perceptions of the risks that neuroleptic treatment poses. In addition to the clin-

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ical risk of tardive dyskinesia, they perceive the legal risk of a liability claim. Unfortunately, they may be tempted to approach treatment decisions not in terms of what they view as appropriate medical practice but rather in terms of what they believe a judge (or jury) would think is appropriate medical practice. That is, they may practice defensively, adopting a legal perspective in making a clinical decision. Ironically, by doing so they allow their own legal concerns to take precedence over the medical interests of their patients, making themselves more rather than less vulnerable to malpractice litigation.⁷

Although our study confirms the impression that physicians and judges tend to approach problems of patient care differently, the news is not all bad. The point at which the two professions diverge is in their estimates of actual risk, not in their views of an acceptable level of risk. This suggests that an educational dialogue between the professions, starting at the training stage, could result in a clearer basis for defining acceptable practice, by clarifying the actual clinical risks associated with neuroleptic treatment. Psychiatrists need to use clinical, not legal, criteria in making treatment decisions; and judges need to learn, through expert witnesses, the clinical facts that can help them evaluate those decisions from a legal perspective.

Acknowledgment

Thanks to Leslie M. Levi for her help in the preparation of this manuscript.

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