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ASSESSING THE IMPACT OF A CONSENSUS CONFERENCE ON LONG-TERM THERAPY FOR SCHIZOPHRENIA

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Abstract

Objective: Our aim was to assess the impact of six recommendations regarding drug prescription on the clinical practices of French psychiatrists. The recommendations were part of the conclusions of a consensus conference entitled "Long-term therapy of schizophrenia" (Paris, January 1994).
Methods: The impact of the conference was assessed on the basis of awareness of the existence of the conference, knowledge of its conclusions, and actual changes in clinical practice. We performed: a) a survey of a representative sample of 396 psychiatrists 2 years after the conference; and b) an analysis of changes in drug prescriptions in a cohort of 2,407 patients with schizophrenia under treatment at the time of the conference.
Results: Overall, 78% of interviewed psychiatrists were aware of the existence of the conference and 70% of its conclusions. Declared prescription practices conformed with conference conclusions about 60% (10%–95%) of the time. No difference in practices was noted between psychiatrists who were

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aware of the recommendations and those who were not. Single neuroleptic prescriptions increased in the cohort study in line with the main conference recommendation. The increase was small, but significant from 51.1% to 56.4%, and mainly concerned patients recently put on treatment. Contrary to recommendations, prescriptions of anticholinergics plus neuroleptics inexplicably rose from 48.2% to 54.3%.

Conclusion: Small changes in prescription habits occurred in the wake of the consensus conference, but we cannot really ascribe them to a direct impact of the conference. Despite the great pains we took in disseminating the conclusions of the conference as widely as possible, it is clear that a more forceful action plan (e.g., including continuous medical education) is required.

Keywords: Schizophrenia, Consensus development conferences, Guidelines, Practice guidelines, Guideline adherence

Consensus conferences were developed in the United States in the 1970s by the Office of Medical Application of Research (OMAR) of the National Institutes of Health (NIH) (10;11). They were introduced in France in 1987 by the ANAES (formerly ANDEM), one of whose mandates is to produce clinical practice guidelines (21). The ANAES has also developed a set of rules on how to organize consensus conferences, which have been widely disseminated throughout France (8), and has already organized or sponsored nearly 50 conferences.

Consensus conferences focus on controversial medical issues. A jury has to produce unequivocal recommendations regarding clinical practice after a public debate during which experts defend the results of state-of-the-art publications and their personal views. In France, members of the jury are chosen from a wide variety of backgrounds. They may be specialists, general practitioners, nurses, economists, etc., but need not necessarily have first-hand knowledge of the topic of the conference.

In January 1994, the French Federation of Psychiatry (FFP) and the National Union of Friends and Families of Mentally-ill Patients (UNAFAM) held a consensus conference entitled "Long-term Medical Therapy of Schizophrenia" with the help of ANDEM (now ANAES). Schizophrenia is a major public health concern. It is a long-term, often highly incapacitating illness, its course is unpredictable, and patient care is costly. Each year about 150,000 schizophrenic patients are treated in France in the public sector. In 1994, schizophrenic patients represented 29 of every 100 psychiatric patients in public hospitals, 37 of 100 psychiatric patients on part-time follow-up, and 18 of 100 psychiatric patients in ambulatory care (22). The consensus conference was held to define standard or clearly defined treatment strategies. Its conclusions, which agree well with recent guidelines published in the United States (2;19), were widely publicized (8) in order to instigate changes in practice where necessary.

This paper will outline the results of an inquiry that attempted to assess the impact of the recommendations made in the conference conclusions. We have restricted ourselves to guidelines relating to the administration of drugs because, unlike guidelines on psychotherapy and social adaptation, they are derived from studies providing a high level of objective evidence.

METHODS

The consensus conference on long-term therapy for schizophrenia was held in Paris on January 13–14, 1994. Its conclusions (1) were made known through four channels:

a) at a press conference held 1 week after the conference; b) by direct mailing by ANDEM in March 1994 to the press, to FFP and UNAFAM members, national health insurance offices, professional organizations, and DRASS (Regional Headquarters of Sanitary and Social Action); c) by publication in full in several journals (16) and sale in medical bookshops (6); and d) by distribution at a psychiatry congress in 1994. Each copy of the conclusions contained an order form for additional copies.

Our impact study focused on the following six conclusions because they were precise, supported by scientific evidence, and liable to lead to changes in practice: a) continuous treatment with a neuroleptic is preferable to discontinuous treatment; b) only one neuroleptic need be administered; c) the systematic prescription of antiparkinsonian anticholinergic medication is not recommended; d) antidepressants should not be prescribed during the acute phase; e) antidepressants are not necessary in chronic schizophrenics with negative symptoms of the deficit state; and f) combining psychotherapy with neuroleptic administration yields better results than either of these treatments administered alone.

The impact of these conclusions was assessed in four ways: a) by analyzing the requests for additional copies of the conclusions; b) by analyzing feature articles published in the medical and lay press; c) by carrying out a survey among psychiatrists 2 years after the consensus conference; and d) by analyzing changes in prescription habits.

The survey was performed on a sample representing 1/25th of the French population of psychiatrists (i.e., 440 psychiatrists) with quotas for professional status (salaried/nonsalaried) and age (under 40, 40–49, 50 and above). Demographic data, as of January 1, 1995, were obtained from the Statistical Studies and Information Services Department (SESI). The questionnaire included items on professional status, clinical behavior patterns in given contexts, whether the psychiatrists knew about the consensus conference, and what they thought about the conclusions, in that order. It was administered to participants at a French national psychiatry congress ("Les deuxièmes rencontres de la psychiatrie," Paris, April 1–3, 1996). Because the quota of nonsalaried psychiatrists was not reached at the congress, an appropriately modified postal questionnaire was sent to 400 psychiatrists in private practice whose names were chosen at random from the professional telephone directory (Minitel). The random selection was stratified according to county ("département").

Changes in prescription habits were recorded during a cohort study of 3,468 patients with schizophrenia (mean age, 39.8 $\pm$ 0.5 yrs) carried out by 122 psychiatry departments in public sector hospitals under the auspices of the French Group of Psychiatric Epidemiology (GFEP) and the National Institute of Health and Medical Research (INSERM—Unit 302) (5). The study included all schizophrenic patients aged between 18 and 65 years in ambulatory care or who had been admitted to the hospital less than a year ago. It was initiated 1 year before the consensus conference (March 1993). The impact of the conference was evaluated in March 1996.

Analysis of variance was used to compare means, and the chi-square test was used to compare qualitative variables (groups of patients or the 1993 and 1996 cohorts). The chosen statistical significance level was .05.

RESULTS

Response to Publicity on the Consensus Conference

The Press Department of ANDEM collated five full-text articles (in psychiatry journals) and 22 clippings (15 in general medicine journals, 5 in the lay press, and 2 in institution broadsheets) on the consensus conference. Six were published before and 21 after the conference.

By the end of December 1995, ANDEM had received 1,121 spontaneous requests for copies of the conclusions of the consensus conference. Of these, 87% arrived in the year of the conference. Most requests were made 5–9 months (May–September) after the conference, with a drastic fall during the summer vacation months; 75% used the special order form in each copy of the conclusions. A total of 8,348 copies were requested, for an average of 7.4 copies per request (95% CI = 0.79; range, 1–200). There was no statistically significant difference in the number of copies per request according to the profession of the person making the request (physician, paramedic, administrator, or other) or their affiliation to any professional or other group. However, whereas an average of 8.3 ± 0.9 copies were requested with each order form, only 1.7 ± 0.9 copies were requested on headed note paper.

Survey of Psychiatrists' Practices

Overall, 264 psychiatrists replied to the questionnaire at the congress. Since salaried psychiatrists were overrepresented in this sample, the numbers were completed by random selection of an additional 176 nonsalaried psychiatrists after mailing the questionnaire to 400 of them and awaiting the replies of the first 240 (Figure 1). The 176 extra questionnaires met the age quotas. The characteristics of the 396 psychiatrists who managed schizophrenic patients are given in Figure 1, as are the sources of information of the 308 psychiatrists who said they were aware of the existence of the consensus conference. However, only 277 of the 396 respondents (70%) said they had any knowledge of the actual conclusions.

The psychiatrists' declared clinical practices were judged against the conference recommendations. Compliance with recommended practices varied widely according to the recommendation (Table 1). There was no great difference in compliance between the psychiatrists who were aware of the conclusions of the consensus conference and those who were not, except for two items: "combining psychotherapy with neuroleptic administration yields better results than either of these treatments administered alone" and "antidepressants are not necessary in chronic schizophrenics with negative symptoms of the deficit state." A higher percentage of psychiatrists who had knowledge of the conference conclusions complied with these recommendations; this result only just reached statistical significance. Overall, answers depended neither on professional status (salaried or not) nor on age.

Changes in Prescription Habits

Of the 3,468 patients entered in 1993 into the INSERM cohort study, only 2,407 (1,542 men [64%] and 865 women [36%]) could be used for a comparison of prescriptions over time. The difference in patient numbers in 1993 and 1996 was given by 432 patients in 10 departments withdrawing from the study, 486 patients who were lost to follow-up, and 143 patients who had died. The results of this comparison are given in Tables 2 and 3. In conformity with the consensus conference recommendation, the practice of restricting administration to a single neuroleptic agent increased slightly between 1993 and 1996, but it nevertheless did not exceed

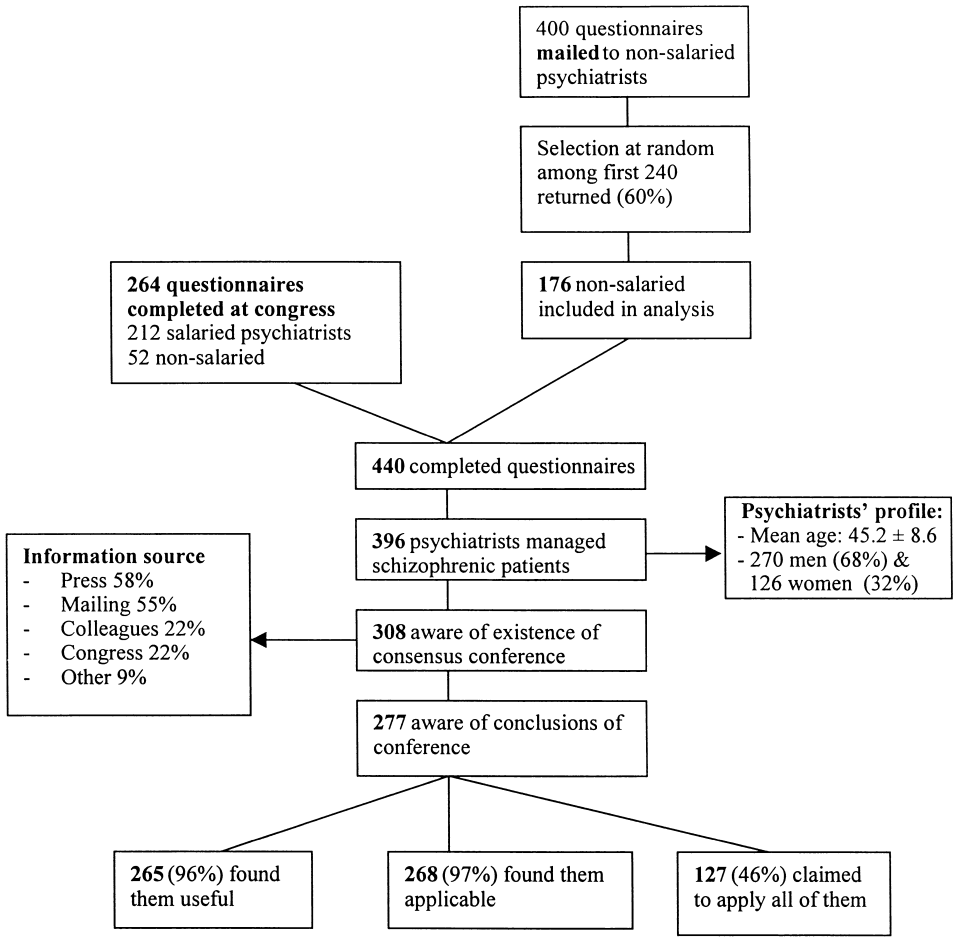

Figure 1. Flow chart of the results of a survey of psychiatrists (interviews and mailing results) interviewed on the consensus conference and its conclusions.

the 56% mark in 1996. The change was significant for hospital patients (Table 3), those under 45, and those who had been ill for less than 20 years (results not shown). The average number of neuroleptics per patient decreased fractionally (Table 3). Surprisingly, the percentage of prescriptions including an anticholinergic agent increased. This increase was significant for patients in both hospital and ambulatory care (Table 3), those over 30, and those ill for more than 5 years (results not shown).

DISCUSSION

The results of our two studies—a survey of psychiatrists' practices and a study of changes in prescription habits—clearly indicate that there is a difference between what psychiatrists claim to prescribe and the actual prescriptions that are dispensed. Furthermore, the impact of the consensus conference on prescriptions was minimal.

What did the psychiatrists claim? Seventy-eight percent indicated they were aware of the existence of the consensus conference, but only 70% of its conclusions.

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Table 1. Recorded Compliance With Consensus Conference Conclusions According to a Survey of Psychiatrists' Prescription Habits

Recommendation	Compliance[a] (all psychiatrists) %	Compliance[a] (psychiatrists aware of conclusions) %	Compliance[a] (psychiatrists unaware of conclusions) %
Do not systematically administer an anticholinergic agent	95 (378)	96 (269)	91 (109)
Combine psychotherapy with neuroleptic	68 (384)	71 (275)	61[b] (109)
Prescribe only one neuroleptic (whether long acting or not)[c]	54 (381)	52 (270)	59 (111)
Do not prescribe antidepressants in acute phase	51 (381)	51 (272)	50 (109)
Continuous treatment is better than discontinuous treatment	42 (383)	43 (271)	40 (112)
Do not prescribe antidepressants for negative symptoms of deficit state	10 (381)	12 (271)	5[b] (110)

[a] The number of psychiatrists is given in brackets.
[b] $p < .05$ for a comparison of the psychiatrists who were and were not aware of the conclusions.
[c] It is possible to combine the prescription of the same neuroleptic by two routes: injection of a long-acting form and oral administration.

When asked about their prescribing habits, just 60% were found to actually comply with the recommendations (range, 10% to 95%, depending on the item). There was no difference in avowed prescribing habits between psychiatrists who said they were aware of the consensus recommendations and those who admitted they were not. This result depended neither on status (salaried/nonsalaried) nor age.

What were the changes in prescription habits before and after the consensus conference? In line with the consensus conference's main recommendation, prescriptions for just one neuroleptic increased, but not substantially. Two years after the conference, 43.6% of the patients with schizophrenia in the INSERM study were still receiving more than one neuroleptic. This result can be compared with the increase in single agent prescriptions from 80% to 84% between March through August 1994 and March through August 1995 in patients diagnosed as psychotic in a survey of doctors in the ambulatory sector (18). Between 1993 and 1996, the percentage of patients who did not receive antidepressants for negative symptoms of the deficit state remained around 80% in the INSERM study. Surprisingly, the percentage of prescriptions including anticholinergic agents increased (to 54% from 48%) rather than decreased. An even higher percentage (60%) was recorded a

Table 2. Changes in Prescription Habits Between 1993 and 1996 in INSERM Cohort Study

Treatment	Prescriptions in 1993	Prescriptions in 1996	Percent change
Neuroleptic(s)	2,341 (97.3%)	2,300 (96.0%)	−1.7[a]
Long-acting neuroleptic(s)	1,351 (56.1%)	1,292 (54%)	−2.1[a]
Only one neuroleptic[b]	1,197 (51.1%)	1,298 (56.4%)	+5.3[a]
Anticholinergic agent(s)	1,160 (48.2%)	1,307 (54.3%)	+5.1[a]
No antidepressant(s) (n = 342)	273 (79.8%)	283 (82.7%)	+2.9

[a] $p < .05$.
[b] Oral and/or injection of long-acting form.

Table 3. Changes in the Prescription of Neuroleptics Between 1993 and 1996 in the INSERM Cohort Study

Treatment	Prescriptions in 1993	Prescriptions in 1996	Percent change
Mean number of neuroleptics per treatment			
Hospital care	1.67	1.58	−0.08[a]
Ambulatory care	1.48	1.41	−0.07[a]
Prescriptions for just one neuroleptic[b] (%)			
Hospital care	41.3	47.3	+6.0[a]
Ambulatory care	54.4	56.5	+2.1[a]
Prescriptions for anticholinergic agents (%)			
Hospital care	46.2	53.9	+7.7[a]
Ambulatory care	49.4	55.0	+5.6[a]

[a] $p < .05$.
[b] Oral and/or injection of long-acting form.

year earlier in a pharmaco-epidemiological survey by the National Association of Hospital Pharmacists and Psychiatrists (ANHPP) (17). We can offer no explanation for this rise. For an international comparison, we can note that in a recent study (24) comparing treatment guidelines (19) with actual care for schizophrenia in two American public health clinics, on the basis of medical records and patient interviews, 38% of schizophrenic patients were found to be receiving poor quality medication.

In our study, there was no change in prescriptions for the older patients who had been treated longest, suggesting that doctors were unwilling to alter the treatment of patients who had reached a stable state. (The consensus conference did not consider this point.) The changes we observed in fact depended somewhat on the initial prescription. To eliminate this bias, it would have been preferable to analyze the prescription habits of selected representative samples of psychiatrists before and after the conference instead of following a cohort of patients, but this was not done for reasons of cost and feasibility. However, we compared—using DSM IIIR criteria (3)—our cohort of patients to a subpopulation of 1,343 patients with schizophrenia in the 1995 ANHPP survey (17) to see whether it was representative. In the ANHPP survey, 616 patients (46%) were receiving just one neuroleptic in 1995. We recorded 51% in 1993 and 56% in 1996. The discrepancy in the 1995–96 figures may be due to two reasons: a) unlike in the INSERM study, which excluded long-term hospital stays, the ANHPP study comprised a majority of inpatients (66%); or b) the conference conclusions may have had a greater impact 1 year later.

From the above, it is clear that our information campaign on the consensus conference conclusions (direct mailing to FFP members, articles in the press, information at a congress) were not enough to change prescription habits. This is in agreement with the conclusions of earlier studies on the impact of consensus conferences, which reveal that their impact is often weak (4;7;9;13;14;15;20;23). One in five of our study sample of psychiatrists (22%) declared to have no knowledge of the conference. There could be several reasons for this. Although, in principle, FFP's files cover all practicing psychiatrists in France, the files may after all be incomplete and/or not up to date. The mail may not be handed directly to the addressee, for instance, in large institutions. Even if the mail is delivered directly, the addressee may give it low priority and leave it unread. In fact, as many psychiatrists were aware of the conference through the press (58%) as by mail (55%). Less than half as many (22%) were informed by colleagues and congresses.

Within the French national health system, doctors in the ambulatory care sector, whether general practitioners or specialists, have to comply with a set of official rules (Références Médicales Opposables [RMOs]) which discourage certain inappropriate practices (21). Noncompliance with an RMO can lead to a fine. An RMO stating that it is inappropriate to administer more than one neuroleptic drug to psychotic patients came into force in March 1995, but even this coercive measure was not enough to substantially influence prescription habits.

How then can practices be changed? Unfortunately, because we lack information on the profiles of the prescribers (they were anonymous and the results were pooled), further publicizing of the consensus conference conclusions cannot be targeted toward specific groups of doctors in certain institutions, regions, etc. Moreover, it is unlikely that any action 4 years after the conference took place would have any great impact because, in the meantime, new antipsychotic drugs with few extrapyramidal effects have been introduced onto the market. They are marketed with the recommendation that they should be administered alone.

POLICY IMPLICATIONS

To measure the impact of the consensus conference, we were fortunate to be able to latch onto an ongoing cohort study. We contacted the sponsors of this study and offered to finance a second data collection in line with our objectives. We therefore recommend that a thorough investigation of ongoing studies be made before deciding to set up specific surveys to assess conference impact.

We noted that the changes in clinical practice primarily concerned the younger patients of the cohort. Clearly, in the case of serious chronic disease, physicians, and maybe patients, are rather unwilling to change a treatment that has brought about a more or less stable state. We therefore suggest that guidelines for such diseases recommend appropriate alternative treatments that are tailored to clinical responses to previous treatments.

We studied the conference impact in three consecutive steps: a) dissemination of the conclusions among psychiatrists; b) knowledge of these conclusions; and c) changes in clinical practice. The inadequacies encountered at each step are cumulative, and thus the desired changes in practice only benefited a fraction of the patient population. We therefore recommend that special emphasis be given to the initial step (how do psychiatrists keep themselves informed, what and how much do they know, and what are their true practices) before issuing practice guidelines. This information is essential because it will determine the need for guidelines and the strategy to be adopted.

REFERENCES

1. Agence Nationale pour le Développement de l'Évaluation Médicale. *Stratégies thérapeutiques à long terme dans les psychoses schizophréniques. Texte du consensus.* Paris: ANDEM, 1994.
2. American Psychiatric Association. Practice guideline for the treatment of patients with schizophrenia. *American Journal of Psychiatry*, 1997, 154, 1–63.
3. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders. DSM-III-R*, 3rd ed. Washington, DC: American Psychiatry Association, 1987.
4. Audibert, G., Charpentier, C., Savoye, E., et al. Outcome of the use of albumin and colloid plasma substitutes from 1989 to 1993 in a French University Hospital Center (article in French). *Annales Françaises d'Anesthésie et de Réanimation*, 1995, 14: 517–22.
5. Casadebaig, F., Philippe, A., Guillaud-Bataille, J. M., et al. Schizophrenic patients: Physical health and access to somatic care. *European Psychiatry*, 1997, 12, 289–93.

6. Comité d'Organisation, Experts, Promoteurs de la Conférence de Consensus. *Conférence de Consensus: Texte des Experts. Stratégies thérapeutiques à long terme dans les psychoses schizophréniques.* Paris: Editions Frison-Roche, 1994.
7. Durand-Zaleski, I., Bonnet, F., Rochant, H., et al. Usefulness of consensus conferences: The case of albumin. *Lancet*, 1992, 340, 1388–90.
8. Durocher, A., Carpentier, F., & Dosquet, P. A methodology for consensus conferences. *Acta Belgica Gastroenterologica*, 1998, 61, 416–21.
9. EUR-ASSESS Project. Subgroup report on dissemination and impact. *International Journal of Technology Assessment in Health Care*, 1997, 13, 220–86.
10. Ferguson, J. H. NIH consensus conferences: Dissemination and impact. *Annals of the New York Academy of Sciences*, 1993, 703, 180–99.
11. Ferguson, J. H. The NIH consensus development program. *International Journal of Technology Assessment in Health Care*, 1996, 12, 460–74.
12. Glikman, J., Pazart, L., Casadebaig, F., et al. Etude de l'impact de la conférence de consensus 'stratégies thérapeutiques à long terme dans les psychoses schizophréniques.' *Encéphale*, 1999, 25, 558–68.
13. Hunskaar, S., Nannestad, Y. S., Backe, B., & Matheson, I. Direct mailing of consensus recommendations did not alter GPs' knowledge and prescription of oestrogen in menopause. *Scandinavian Journal of Primary Health Care*, 1996, 14, 203–08.
14. Kanouse, D. E., Winkler, J. D., Kosecoff, J., et al. *Changing medical practice through technology assessment: An evaluation of the NIH consensus development program. A Rand Corporation Research Study.* Ann Arbor: Health Administration Press, 1989.
15. Kosecoff, J., Kanouse, D. E., Rogers, W. H., et al. Effects of the National Institute of Health consensus development program on physician practice. *JAMA*, 1987, 258, 2708–13.
16. Kovess, V. The French consensus conference on long-term therapeutic strategies for schizophrenic psychoses. *Society of Psychiatry and Psychiatric Epidemiology*, 1995, 30, 49–52.
17. Lachaux, B., Ardiet, G., & Adouard, D. L'abord médicamenteux de la prise en charge des pathologies schizophréniques: Vingt ans après. *L'Information Psychiatrique*, 1997, 10, 991–97.
18. Le Fur, P., & Sermet, C. *Les références médicales opposables. Impact sur la prescription pharmaceutique*. Report no. 1116. Paris: CREDES, 1996.
19. Lehman, A. F., Steinwachs, D. M., & co-investigators of the PORT Project. At issue: Translating research into practice—The schizophrenia patient outcomes research team (PORT) treatment recommendations. *Schizophrenia Bulletin*, 1998, 24, 1–10.
20. Lomas, J. Words without action? The production, dissemination and impact of consensus recommendations. *Annual Review of Public Health*, 1991, 12, 41–65.
21. Maisonneuve, H., Cordier, H., Durocher, A., & Matillon, Y. The French clinical guidelines and medical references programme: Development of 48 clinical guidelines for private practice over a period of 18 months. *Journal of Evaluation in Clinical Practice*, 1997, 3, 3–13.
22. Quemada, N., Parayre, C., & Boisguérin, B. *Enquête nationale sur la prise en charge dans les secteurs de la psychiatrie générale.* Direction Générale de la Santé, Ministère de la Santé, 1993.
23. Thamer, M., Ray, N. F., Henderson, S. C., et al. Influence of the NIH consensus conference on *Helicobacter pylori* on physician prescribing among a Medicaid population. *Medical Care*, 1998, 36, 646–60.
24. Young, A. S., Sullivan, G., Burnam, A., & Brook, R. H. Measuring the quality of outpatient treatment for schizophrenia. *Archives of General Psychiatry*, 1998, 55, 611–17.