Do guidelines modify clinical practice?

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Nancy

Evaluation of practices in the field of addiction medicine is limited

Addiction medicine in France

- 2 consensus conferences
  . Withdrawal in alcohol-dependent patients (1999)
  . Supportive care of alcohol-dependent patients (2001)

- 3 clinical practice guidelines
  . Definitions, classifications
  . Abuse without dependence
  . Multiple substance abuse

Up until the 1990s, the modalities of alcohol withdrawal were heterogeneous and rarely evidence-based.

This was the purpose of the first consensus conference of this theme.

No evaluation of the impact of guidelines on clinical practice was initially planned => retrospective study in 2005/2006

Objective

Did this consensus conference improve clinical practice between 1999 (before) and 2006 (after)?

Methodology

Retrospective, comparative study of 1999 vs 2006
Analysis of clinical practices in a population of general practitioners and specialists.
Source = patient charts.

GPs, members of the Société Française de Médecine Générale, agreeing to fill in a standard case report form concerning alcohol.

In 1999: 58 GPs satisfying the criteria – 286 patients with an alcohol problem

In 2005: 65 GPs – 364 patients

Analysis after exclusion of non-alcohol-dependent patients and GPs not wishing to participate, etc.
In 1999: 49 patients In 2005: 97 patients

Methodology

Addiction physicians

20 centres selected on the basis of geographic criteria, activity profile (outpatient/inpatient, etc.)

8 patients randomly selected from each centre
153 patients included

. 1999: 74
. 2005: 79

Results

GPs

Patients	1999	2006
Nombre	49	97
Age moyen	46 ans	47 ans
Hommes	63 %	71 %

Specialists

Nombre	74	79
Age moyen	43 ans	45 ans
Hommes	79 %	75 %

GPs

	1999	2006
Médicaments	**%**	**%**
Benzodiazepines	56.3	64.9
Meprobamate	31.3	34.0
Neuroleptiques	20.8	16.5
Maintien abstinence	41.7	46.4
Vitamines (B1/B6/PP)	31.3	29.9

Specialists

Benzodiazepines	64.8	97.5
Meprobamate	10.8	8.9
Neuroleptiques	33.8	12.7
Maintien abstinence	33.8	55.7
Vitamines (B1/B6/PP)	66.2	59.5

Conclusion of the study

Methodological limitations (number of patients, retrospective study)
Provides an overview of changing prescribing practices for withdrawal of alcohol-dependent patients
Discordant results
Better results among addiction physicians.
- Easier and more effective diffusion of guidelines
- More directly concerned.

Few published studies

Cardiovascular (hypertension)

Siegel D JAMA 1997

Study conducted in the USA on the impact of guidelines on the treatment of HT between 1992 and 1995, before and after publication of guidelines in 1993 recommending first-line treatment with diuretics and beta-blockers.

Drug classes	**1992**	**Cost** (billion dollars)	**1995**	**Cost** (billion dollars)
CA	33%	2.67	38%	2.86
ACE inhibitors	25%	1.37	33%	1.67
β-blockers	18%	0.763	11%	0.433
Diuretics	16%	0.353	8%	0.168

Conclusion of the study

Guidelines had little impact on prescriptions.
The economic consequences are considerable for this disease.

Study by Guo JD (Value Health, 2003): role of HMO insurance on prescription of antihypertensives.
Prescriptions for patients with HMO insurance cover complied with guidelines less frequently than prescriptions for fee-for-service patients.

Study of the impact of guidelines on the treatment of heart failure

Shafazand S. Clin Ther 2010

Analysis of 6 months of prescriptions before and after publication of the guidelines.

Retrospective study conducted in 2 cohorts

. 2005 = 29,784 patients (mean age = 75 years)

. 2006 = 33,598 patients (mean age = 74 years)

Drug classes	2005	2006	p
ACE inhibitors	43%	44%	p = 0.01
β-blockers	37%	41%	p < 0.01
AR blockers	10%	13%	p < 0.01
Hydralazine	3%	4%	p < 0.01

Conclusion of the study

Few differences concerning prescriptions between the 2 cohorts.
Slight decreased health care utilization after publication of the guidelines.

Acute pancreatitis

Rebours V. Eur J Gastroenterol Hepatol 2012

Do guidelines on the treatment of acute pancreatitis influence medical practice?
Study of 2008 vs 2001 – 176 questionnaires analysed

Tests	2001	2008
Lipase for diagnosis	83%	99%
CT scan to assess severity	29%	69%
Balthazard severity index	55%	76%
Prophylactic antibiotics (necrotising AP)	57%	20%
Artificial nutrition (necrotising AP)	25%	58%

Same results as those of a Japanese study.

Other published studies have reported discordant results (diabetes, rheumatology, etc.)

Grimshaw J. J Gen Intern Med 2006

Systematic review of the efficacy of guidelines published between 1966 and 1998.
235 studies
The overall quality of the studies was poor.
73% of studies evaluated multifacetted interventions.
86.6% of comparisons demonstrated often limited improvement of care:
Median absolute improvement in performance = 6.0 to 14.1%.

Conclusion (1)

Few good quality studies are available. Variable results. Results appear to be better in limited, homogeneous populations with access to information (specialists). More variable results when studies are based on larger numbers of more diverse clinicians (general practice).

Changing clinical practice is a long and difficult process, raising a number of different questions

Conclusion (2)

Objective of guidelines = improve clinical practice

=> Several steps

1. **Elaboration of guidelines**
   = state of knowledge / good practice. Insufficient
2. **Adaptation to different targets (practices)**
   (general practitioners, specialists, non-physicians)
3. **Diffusion**
   What is the best way of informing the people concerned?
4. **Long acquisition time for clinicians**
   Role of follow-up training: continuing medical education, etc.
5. **Evaluation** of changes of clinical practice
   Must be defined at the time of writing guidelines.