PLENARY SESSION 1

ANTIEMETIC GUIDELINES-ARE THEY BEING USED?

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Yes
ANTIEMETIC GUIDELINES-ARE THEY BEING USED?

Definition of and reflexions on guidelines

Antiemetic guideline

Transfer of the antiemetic guideline

Factors that influence the success of guidelines

Strategies to implement guidelines better
DEFINITION OF A GUIDELINE

“Guidelines are systematically developed statements to assist practitioner and patients decisions about appropriate health care for specific clinical circumstances.”

Institute of Medicine Committee to Advise the Public Health Service on Practice Guidelines. Field et al. National Academy Press, 1990
### WHAT IS SOUGHT FROM GUIDELINES DEPENDS ON

<table>
<thead>
<tr>
<th>Group</th>
<th>Interest</th>
</tr>
</thead>
</table>
| Physicians                         | Improvement of clinical outcome  
                                    | Loss of clinical autonomy                                                  |
| Patients                           | Improvement of clinical outcome                                          |
| Insurances                         | Reducing costs and variations in practice                                |
| Politicians                        | Decrease of public expenditures                                          |
| Administrators of hospitals        | Optimizing efficiency and risk management                                |
WHAT DO PHYSICIANS THINK OF GUIDELINES?

- Good educational tools: 54%
- Motivated by a desire to improve quality of life: 51%
- To rigid to be applied to individual patients: 35%
- Cookbook medicine: 46%
- Loss of autonomy: 34%
- To be used for physician disciplinary actions: 61%
- Motivated by a desire to reduce costs: 68%

WHAT DO PHYSICIANS THINK OF THE EFFECT OF GUIDELINES?

Quality of patient care: 52% increase, 18% decrease

Physician satisfaction: 12% increase, 42% decrease

Physician reimbursement: 6% increase, 47% decrease

Total cost of health care: 41% increase, 18% decrease

Borkowski et al., Hosp Top 2003
DOES THE CONFIDENCE OF THE PHYSICIAN REGARDING THE GUIDELINE DEPENDS ON THE TYPE OF ORGANIZATION?

- American College of Physicians: 66%
- American Academy of Family Physicians: 62%
- American Academy of Orthopedic Surgeons: 57%
- National Osteoporosis Foundation: 53%
- American Medical Association: 40%
- National Institutes of Health: 27%
- Agency for Health Care Policy Research: 25%
- Florida’s Agency for Healthcare Administration: 25%
- Blue Cross/Blue Shield Association: 8%

GUIDELINE EVEN TO BE ACCEPTED HAS TO:

- Be based on scientific evidence
- Refer to acute clinical problems
- Be uncontroversial
- Be compatible with regulations in effect and routines
- Provoke positive reactions in the patients
- Set out clearly, refer to the target group
- Precise

Grilli et al., Med Care 1994  
Grol et al., BMJ 1998  
Grol et al., Lancet 2003  
Michie et al., BMJ 2004
ALTHOUGH A GUIDELINE IS PRECISE…

4000 crossroads with traffic lights

20 have an observation camera

118 820 cars passed the red light successfully in 1999

17 800 000 red light crossings in the whole city in 1 year
How effective is the transfer of the antiemetic recommendations into daily clinical routine?
ANTIEMETIC TREATMENT AND EMETOGENICITY

The Italian Group for Antiemetic Research, Annals of Oncology 1998

Incorrect antiemetics, %

Acute vomiting

- Low: 63%
- Moderate: 58%
- High: 24%

Delayed vomiting

- Low: 15%
- Moderate: 67%
- High: 79%
ANTIEMETIC TREATMENT ACCORDING TO THE RECOMMENDATION WAS BETTER

The Italian Group for Antiemetic Research, Annals of Oncology 1998
Centers with - without background of antiemetic research

The Italian Group for Antiemetic Research, Annals of Oncology 1998

Acute vomiting

Correct antiemetics, %

- Low: 75% (With background), 36% (Without background)
- Moderate: 47% (With background), 38% (Without background)
- High: 92% (With background), 64% (Without background)

* P < 0.001
** P < 0.01
TRANSFER OF ANTIEMETIC GUIDELINES FOR THE PREVENTION OF ACUTE AND DELAYED EMESIS

Drug Utilization Review Team in Oncology (DURTO), Support Care Cancer 2003
ANTIEMETIC TREATMENT FOR DELAYED EMESIS

Fabi et al., Support Care Cancer 2003

Correct antiemetics, %

Emetogenicity

- Low: 31%
- Moderate: 64%
- High: 43%
Acute vomiting:
20-60% of the patients were not treated according to the guideline.

Delayed vomiting:
15-70% of the patients were not treated according to the guideline.
What might be the reason that guidelines are not being followed?
FACTORS THAT INFLUENCE THE SUCCESS OF GUIDELINES

<table>
<thead>
<tr>
<th>Organisation that issues the guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline itself</td>
</tr>
<tr>
<td>Health care organization</td>
</tr>
<tr>
<td>The way in which guidelines are being introduced</td>
</tr>
<tr>
<td>Patients</td>
</tr>
<tr>
<td>Nurses</td>
</tr>
<tr>
<td>Physicians</td>
</tr>
</tbody>
</table>
CHANGING THE PHYSICIAN’S BEHAVIOR IS DIFFICULT

Knowledge → Attitudes → Behavior

Lack of: familiarity

Lack of: agreement, outcome-expectancy, self-efficacy, motivation

External factors: patients, guidelines, environment

Time

Cabana et al., JAMA 1999  Grol et al., Lancet 2003  Michie et al., BMJ 2004
Strategies for a better implementation of guidelines
BETTER IMPLEMENTATION OF GUIDELINES

Passive dissemination is ineffective

Multifaced interventions are more effective:
  Educational material
  Educational outreach visits
  Patients mediated interventions
  Computerized decision support system

Testing the feasibility and acceptance

A multidisciplinary team formed the antiemetic committee.

Three different versions of the antiemetic guideline were established.

Education of physicians, pharmacists and nurses occurred.

Physicians were contacted personally.

Check box on the chemotherapy order sheet.
IMPLEMENTATION OF ANTIEMETIC GUIDELINES

Nolte et al., J Clin Oncol 1998

Correct antiemetics, %

<table>
<thead>
<tr>
<th>Version</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>73</td>
<td>83</td>
<td>98</td>
</tr>
</tbody>
</table>

No vomiting, %

<table>
<thead>
<tr>
<th>Version</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>77</td>
<td>88</td>
<td>90</td>
</tr>
</tbody>
</table>
ANTIEMETIC GUIDELINES LEAD TO A REDUCTION OF COSTS

Nolte et al., J Clin Oncol 1998
GUIDELINE IMPLEMENTATION STUDY

Educational process:
  Guideline dissemination
  Use of opinion leaders
  Interactive educational workshops
  Therapeutic reminders
  Physician audit and feedback

Intervention process:
  Interventions by pharmacists

Dranitsaris et al., Support Care Cancer 2001
## GUIDELINE IMPLEMENTATION STUDY

<table>
<thead>
<tr>
<th>Usage criteria</th>
<th>Within guidelines (N=195)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indication (moderate to highly emetogenic chemotherapy)</td>
<td>97.4%</td>
</tr>
<tr>
<td>Dosage (1 mg i.v. per day)</td>
<td>99.0%</td>
</tr>
<tr>
<td>Duration (24 h after chemotherapy only)</td>
<td>94.4%</td>
</tr>
<tr>
<td>All three usage criteria fulfilled&lt;sup&gt;a&lt;/sup&gt;</td>
<td>88.7%</td>
</tr>
<tr>
<td>Cost savings per appropriate prescription&lt;sup&gt;b&lt;/sup&gt;</td>
<td>$10.00–$20.00</td>
</tr>
</tbody>
</table>

<sup>a</sup> Pharmacists intervened on 49 occasions  
<sup>b</sup> Relative to previous ondansetron 8 mg i.v. 2–3 times daily prescribing data

Dranitsaris et al., Support Care Cancer 2001
IMPROVING CLINICIANS ADHERENCE TO ANTIEMETIC GUIDELINE

- Collaborative clinical guideline development
- Visiting lectures
- Feedback on group performance
- Sharing of patient outcomes

Wilson et al., J Clin Oncol 2003
MEASURES TAKEN TO IMPROVE GUIDELINE ADHERENCE

Wilson et al., J Clin Oncol 2003
## CHANGING THE PHYSICIAN’S BEHAVIOR

<table>
<thead>
<tr>
<th>Methods</th>
<th>Long-term effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education (guideline dissemination)</td>
<td>not successful</td>
</tr>
<tr>
<td>Feedback</td>
<td>effective</td>
</tr>
<tr>
<td>Education of opinion leaders</td>
<td>successful</td>
</tr>
<tr>
<td>Administrative interventions</td>
<td>successful</td>
</tr>
<tr>
<td>Financial incentives or penalties</td>
<td>successful</td>
</tr>
</tbody>
</table>

Davies et al., JAMA 1995
Goldman et al., NEJM 1990
Greco et al., NEJM 1998
Wilson et al., J Clin Oncol 2003
20-70% of the patients did not receive the appropriate antiemetic treatment.

Guidelines have to be better implemented.

Guidelines should be precise, easy to follow, evidence-based and refer to acute clinical problems.

Internal and external barriers inhibit the implementation of guidelines.

Only a long-term educational process combining different methods with active participation of all persons involved may improve the antiemetic outcome.