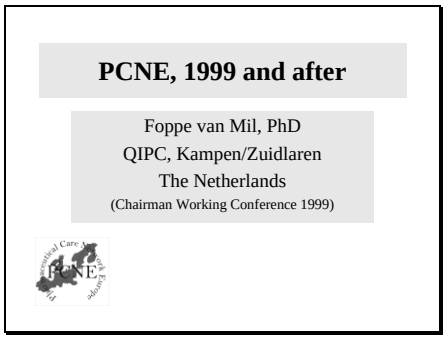
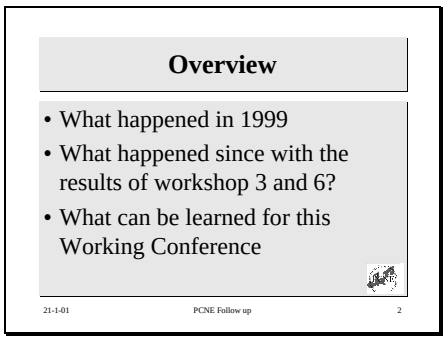
Dia 1



Dear friends,

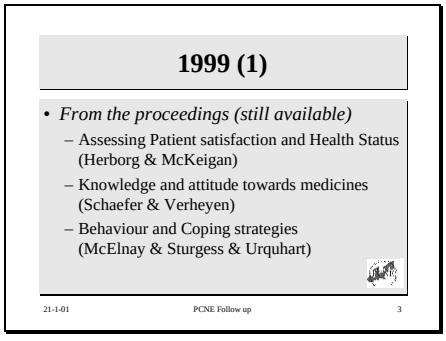
In 1999 I had the honour of being the chairman of the working conference. At that time, we conducted a lot of pharmaceutical care and pharmacy practice research, but most researchers ran into problems when they wanted to use specific instruments for measuring the effect of pharmaceutical care, or for documenting the process.
Additionally, because in most countries different instruments were being used, comparison of results was difficult. The same reasons for organising the working conference then, still exist. Although there are many publications now on projects on the effect of pharmaceutical care, the results are mixed and can hardly be compared. Therefore I am happy to see you all here now.
Back to 1999 then.

Dia 2



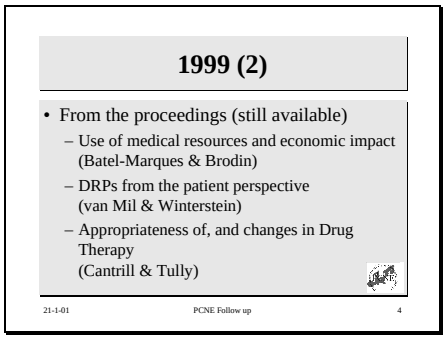
I will briefly touch upon the following topics this morning.
First, what did we do in 1999
Second, what happened since with the results of especially workshop 3 and 6.
And third, what can we learn from those events.

Dia 3



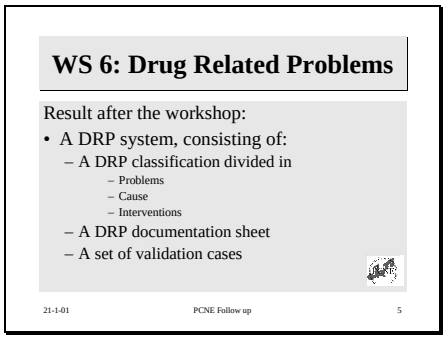
In the proceedings of 1999, which by the way are still available and can be bought at the conferences perfect secretary, Helle Tomming, we can see that six workshops were run.
From this list, as far as I can see, the participants and leaders of two workshops continued working on an instrument, and we will present those projects this morning.

Dia 4



Although I am not aware of the continuation of the other 4 workshops, their effect cannot be neglected. The mere fact that experts from different countries discussed those topics already is a remarkable result. Often definitions were shaped, and a lot of input from specially the social sciences or other specialties, brought the participants on a higher level.
As for the two continued projects, this morning we will present some results of the workshop of Schafer and Verheyen, and I will now proceed to give you some conclusions from the validation of the Drug Related Problem system we produced in 1999.

Dia 5



Workshop six had a number of participants, who were really experts in the field. I think I must mention especially the input of Tommy Westerlund and the people from Spain who just had discussed the Granada consensus that has been published in the Spanish Pharmaceutical Care journal in 1999. Also Almut Winterstein represented the Marion Schaefer, who at that time was busy with the PDOC system. I myself had some experience with the PAS system. And we even had a participant from New Zealand!
The core of what was achieved during the workshop is reflected here. The basic element of the new system was that the problem itself was separated from the cause of the problem. During the workshop, this issue took a lot of discussions.
During the networking marked, yesterday, I have tried to show as many results of the validation procedure as possible. I now will concentrate more on the discussion of the results and the preliminary conclusion of the validation, based on one example case.

Dia 6

Example Problem section

Primary Domain	Code	Problem
Lack of Drug Patient does not take the drug he/she requires	P1.1	No drug prescribed but clear indication
	P1.2	Drug not taken at all
Unnecessary drug Patient takes a drug he/she does not require	P2.1	Duplication of therapeutic group or active ingredient
	P2.2	No clear indication for drug use
Wrong medicine Patient takes or is going to take a wrong medicine for his/her disease and/or condition	P3.1	Interaction (without symptoms) or potential interaction
	P3.2	Manifest interaction
	P3.4	Contra-indication

description

21-1-01 PCNE Follow up 6

But first I will show you a just a small part from the problem section of the system.
For coding problems, six domains with 23 codes are available, for coding causes we have 6 domains with 34 codes, and for coding interventions we have 5 domains with 12 codes.
The cases and interventions are constructed similarly. The domains, on the right have a description. The problems, cause and interventions themselves do not yet have a proper description, but maybe that should be changed.

Dia 7

Validation PCNE-DRP system

- Co-operation from 9 countries
- Questionnaire developed
- Translation into Dutch/Flemish and Catalan
- 31 responses for the coding of the cases
- 26 completed questionnaires returned
- Analysis with SPSS multiple response module

21-1-01 PCNE Follow up 7

During the past 2 years the system has been presented for validation in 9 different countries, together with a questionnaire. In two countries the validation pack was translated into another language. After approx. 18 months we had 31 responses with coded cases, and from 26 of the respondents also a completed questionnaire.
The codes were analysed with the SPSS multiple response module, because more codes could be assigned to each case.

Dia 8

Respondents

Country	English	Local language	Quest. completed	Total
Belgium (Flanders)	1	2	2	**3**
Canada	4	na	4	**4**
Spain (Catalunia)	4	3	6	**7**
The Netherlands	1	4	5	**5**
Norway	3		3	**3**
Portugal	2		2	**2**
Sweden	2		2	**2**
United Kingdom	2	na	2	**2**
USA	3	na	0	**3**
Total	**22**	**9**	**26**	**31**

21-1-01 PCNE Follow up 8

This is an overview of the responding countries and as you can see, from the USA only the codes were returned, not the questionnaires. Also in the USA they did not use the provided coding forms.

Dia 9

Results questionnaire

Average	Difficulties (% of respondents)	Inappropriate codes (% of responses)
Problems	15.4	18.3
Causes	13.9	17.2
Interventions	3.6	8.6

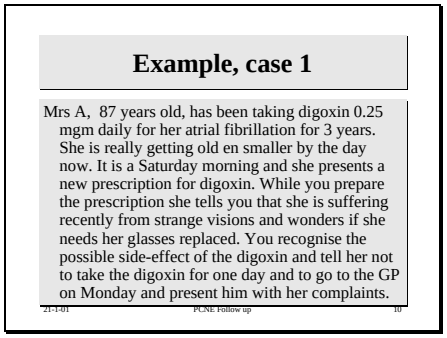
	Missing problems In the system	Missing causes In the system	Missing interventions In the system
Yes	15	8	10
No	11	17	15

21-1-01 PCNE Follow up 9

In the questionnaire respondents could indicate if they had problems finding the appropriate code for a specific case. As you can see, finding the appropriate code in the system for a problem or cause on average posed some problems; finding a code for the intervention was the easiest. If we look at how many inappropriate codes were given, we see about the same pattern.
We also asked the respondents if they missed certain coding possibilities, based on their own practice experience. Here

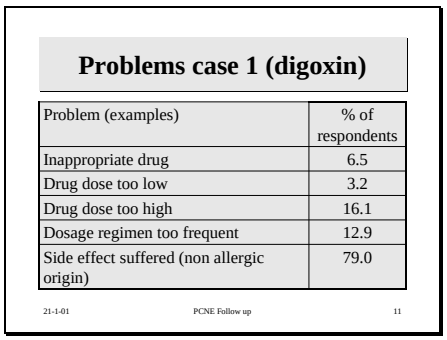
also you see that the majority missed certain codes for coding the problems. Together with the remarks from the respondents, this pattern supports the suggestion that it is difficult to separate clearly a problem from its cause. It also illustrates that most respondents have a tendency to read more behind the cases, than was meant to be. This lead to inappropriate coding.

Dia 10



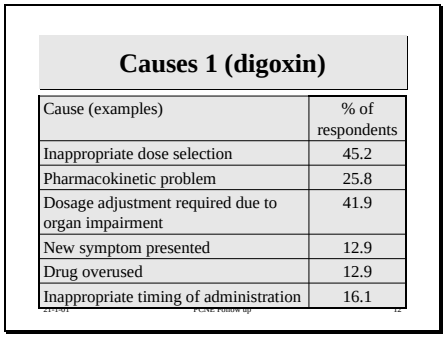
I would like to take the first case (of 20) to show you some of the results. (read case out loud).

Dia 11



Here you see the part of the results of the SPSS multiple response analysis for this case. Apart from the first two codes, one could say that the last three indeed in a way reflect the problem. However, drug dose too high and dosage regimen too frequent are the cause for the problem. Respondents indicated that indeed they sometimes had difficulties to make a proper separation between the problem and its cause. This has to be clarified.

Dia 12



Here you see a good example of inappropriate coding in the cases. The last three causes are not described in the case. There may be a new symptom but the cause is really in the overdose of the digoxin. The drug is maybe in a sense overused, but in this case not deliberately and code for drug overuse is meant as ‘on the patients initiative’. This must be clarified in the system. And in the case there is no word about the timing of the administration in the problem description, so the last code is inappropriate as well. There is a change in timing of administration proposed as part of the solution.

Dia 13

Interventions case 1 (digoxin)

Interventions (examples)	% of respondents
Prescriber informed only	6.7
Intervention proposed, not approved by prescriber	3.3
Practical instructions to patient	16.7
Patient referred to prescriber	80.0
Dosage changed to …….	20.0
Spoken to family member/care giver	3.0

21-1-01 PCNE Follow up 13

Again some surprising results. The intervention, according to the case, no contact had yet been made with the prescriber, nor had the pharmacist spoken to the family member or care giver. Indeed, the dosage was changed and the patient was referred to the prescriber.

Dia 14

Preliminary Conclusion (1)

Internal consistency
There still is an overlap between some problems and some causes. Missing problems, causes and interventions have also been identified.
Construct validity
The separation between problems and causes poses problems. Also, the attribution of a small number of problems and/or causes and/or interventions to specific domains is debatable.

21-1-01 PCNE Follow up 14

Read

Dia 15

Preliminary Conclusion (2)

(International) reliability
Respondents have sometimes clearly given additional interpretations to the cases. No influence of a country seems obvious. Improvement of the system and improvement of the problem description is desirable.
Usability in research and practice settings
Both the system as well as the reporting forms are well received, but might certainly be improved.

21-1-01 PCNE Follow up 15

Read

Dia 16

Way forward DRP project

- Group of clinical experts should assess inappropriate codes in the results
- Working group should discuss results, adapt system and add
  - Clarification of separation of problem and cause
  - Descriptions of problems-causes-interventions

21-1-01 PCNE Follow up 16

Read

Dia 17

Conclusion

- Working conference is a very good and productive tool to improve research and produce instruments
- Dissemination of results is important
- Working groups do not end with the end of the conference but should continue

21-1-01 PCNE Follow up 17

I think, looking back, that there are a number of important conclusions to be drawn from this presentation.
First, it seems that a working conference in an isolated surrounding is a very good tool for the creation of instruments and exchanging research challenges;
Second, it is important to disseminate the results because I find that many researchers who cannot be present, also do not know what is being achieved
And the last message is that we all should

be aware that the working group does not end with the conference, but may and should continue with the development of instruments and research strategies.