

# **Dutch experience**

## **Compliance and non-compliance with medical co-prescription of heroin**

Side study to the Dutch heroin trial

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# Outline of presentation

- side studies (objectives and overview)
- acceptance of co-prescribed heroin
- methods
- some quantitative and qualitative results
- tentative conclusions

# Objectives of side studies

- understanding processes and mechanisms underlying the effectiveness of co-prescribed heroin treatment
- collecting additional data necessary for registration of heroin as a medicinal product
- responding to developments in the daily practice of co-prescribing heroin

# Overview of side studies

- pharmacodynamics and bioavailability
- methadone dose levels in the Netherlands
- psychosocial treatment for treatment-resistant patients
- process of change and acceptance of heroin treatment
- intensity and course of craving
- effects of varying heroin dose level (pk-pd)
- population pharmacokinetics
- pulmonary problems among heroin users
- lung function among patients
- pharmaceutical forms of diacetylmorphine
- contact dermatitis
- cost-effectiveness of medical co-prescription of heroin

# Acceptance of co-prescribed heroin

## Study questions

What are the similarities and differences (in profiles and motives) between:

- 1 treatment-resistant heroin addicts that did or did not participate in the trial?
- 2 patients in the trial that did or did not start the co-prescribed heroin treatment as offered?
- 3 patients that did or did not complete the co-prescribed heroin treatment as offered?
- 4 patients that visited the heroin prescription unit frequently or infrequently (*per protocol* treatment)?

# Acceptance of co-prescribed heroin

## Design of the study

study	sample	location	assessment	remuneration
non-starters & stoppers	n = ± 60	nationwide	one 'open' interview ± 1 hour	50 guilders

# Acceptance of co-prescribed heroin

## Definition *treatment completion*

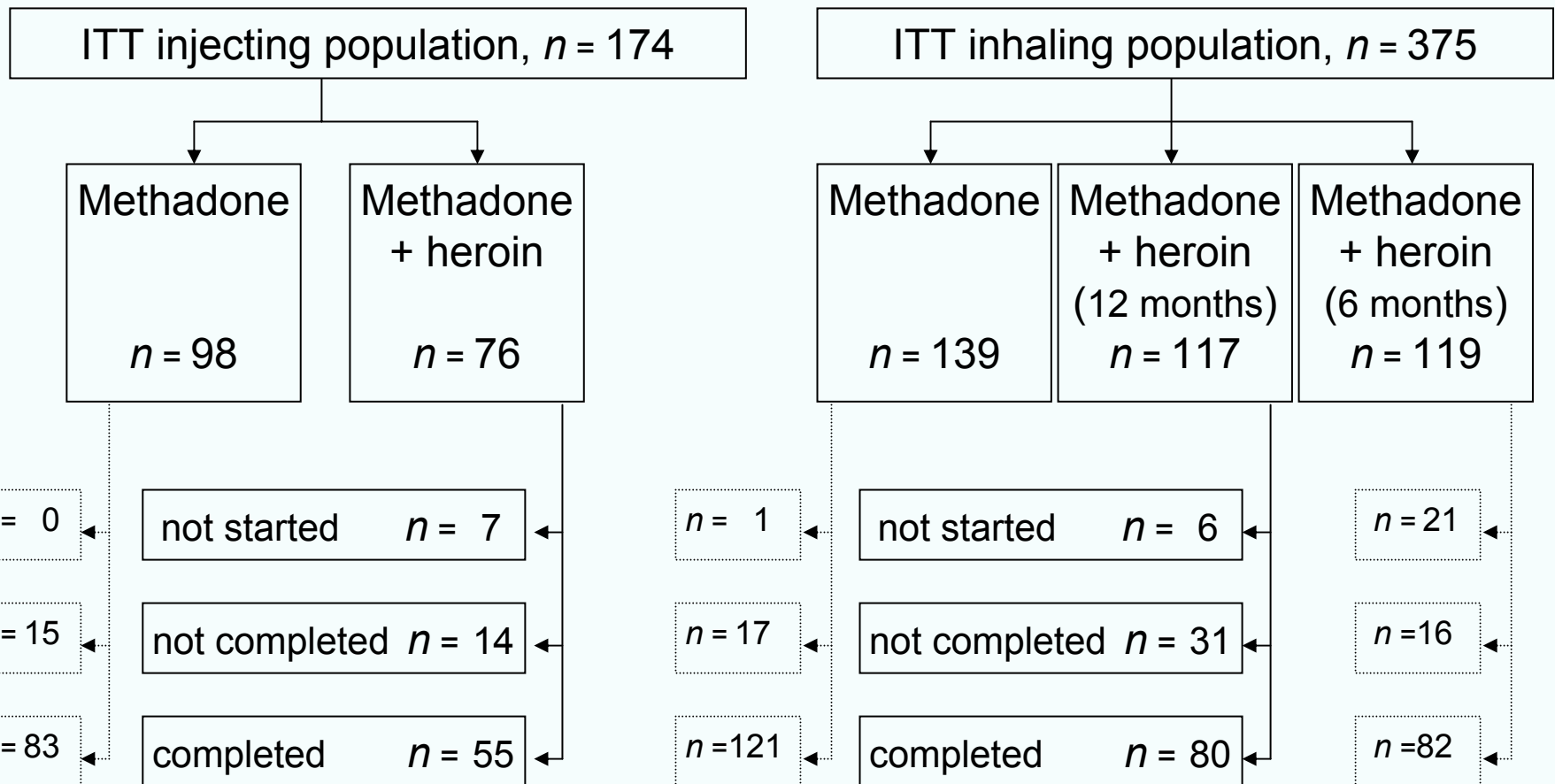
Patients in the experimental heroin group were considered to be treatment completers if they still received medically co-prescribed heroin in month 12.

Treatment non-completers either:

- 'never started treatment'
- 'stopped treatment before the intended duration'

# Acceptance of co-prescribed heroin

## Treatment compliance of patients



# Treatment completion control *versus* heroin group

## injectable heroin

### treatment completion

- methadone group 85%
- heroin group 72% OR = 0.48, p = 0.06

## inhalable heroin

### treatment completion

- methadone group 87%
- heroin group 68% OR = 0.32, p = 0.00

# Completers *versus* non-completers quantitative results (I)

		completers ( <i>n</i> = 135)	non-completers ( <i>n</i> = 58)	p
gender	male	72%	28%	0.16
	female	61%	39%	
age		40 yr	39 yr	0.23
ethnicity	dutch/western	69%	31%	0.69
	other	73%	27%	
physical health		71%	67%	0.56
mental health		67%	73%	0.40
illegal activities		72%	68%	0.55
social contacts		69%	70%	0.86

## Completers *versus* non-completers quantitative results (II)

		completers ( <i>n</i> = 135)	non-completers ( <i>n</i> = 58)	p
regular use (years)	heroin	17	16	0.33
	methadone	13	12	0.09
	cocaine	10	11	0.16
	amphetamine	5	3	0.28
current use (days)	heroin	26	26	0.82
	methadone	29	29	0.76
	cocaine	16	21	0.00
	amphetamine	-	-	-

n.b. current cocaine use does *not* predict response

## Reasons for not-starting; some examples qualitative results (III)

I realised that when I would start, I had to use both methadone as well as my prescribed heroin dosage and that after a number of months it would be: "Stop!". Then I would fall back all the way. I was just thinking, I was convinced that I would be even worse off, than I am at the moment.

The major reason for me not to have started heroin treatment is that I have my roots in Brabant. That's where my family lives and that's where I go quite regularly. So, if I would enter the heroin project, then I would be stuck to it for seven days a week.

Sitting there in some group, receiving your stuff and being watched all the time, you know [laughs]. That's what I can't stand at all. I just have to do my own small rituals. I don't want to inject like darting, empty the syringe, get the needle out and: "Bye!".

# Reasons for not-completing; some examples qualitative results (IV)

- **treatment characteristics:**  
prescribed medication  
house rules
- **patient characteristics:**  
drug use pattern  
medical situation  
personal situation

# Reasons for not-completing; some examples qualitative results (IVa)

## **treatment characteristics: prescribed medication**

The major reason I stopped, was that I did not get stoned from the [prescribed] dope. I got a little sleepy, but not stoned (acc-1220-1)

The taste has nothing to do with heroin at all, it is no heroin. I've read it on the sticker on the sachet, it is a very difficult name and then ending with 'morfine' (acc-1603-1)

# Reasons for not-completing; some examples qualitative results (IVb)

## **treatment characteristics: house rules**

I just could not accept the fact that all the dope had to be smoked in half an hour (acc-1215-1)

I liked it, but it is at the expense of the rest of your daily life. It takes the whole day. To go there took me 45 minutes, then I went back and then again in the afternoon, the evening, at Saturdays and Sundays. In the end I became really irritated about that (acc-0142-6)

Normally, when I used heroin, I do not take my methadone. But in the heroin project I had to take methadone and then smoke a quarter of a gram of heroin at such a high pace, I never used to. It had to be smoked that fast, there was no fun to it (acc-1234-2)

I can not stand it when people are looking at me. I want to smoke in my own way, slowly. And so I just took some of it home and they saw it and after the third time I was kicked out (acc-0101-4)

# Reasons for not-completing; some examples qualitative results (IVc)

## patient characteristics: drug use pattern

If I am here, I am always inclined to smoke more. Maybe you think it is nonsense, maybe you don't believe me, but if I touch the aluminum foil, then I want to be more stoned and then I go out and buy some more (acc-1034-2)

I went to the heroin program because there was free heroin. That was my main motivation, not because I needed heroin; that's not my problem. Cocaine is my problem, that should be prescribed (acc-1171-2)

# Reasons for not-completing; some examples qualitative results (IVd)

## patient characteristics: medical situation

I couldn't get used, because I cough. I am just out of the hospital and I have problems with my lungs, with my muscles. So, whenever I smoke, I cough. And when I start heroin then I have to do cocaine first. I felt nothing. I couldn't inhale anything (acc-1014-2)

I was injecting, but that did not go well. I could not find a vein in the end. Shooting up three times a day is too much for your veins (acc-0090-4)

# Reasons for not-completing; some examples qualitative results (IVe)

## patient characteristics: personal situation

I have to go to Turkey, to bring my mother back there. Meanwhile I am abroad myself as well (acc-1034-2)

I stopped because I got a job. I work shifts, one week at nights, the other week in the morning.

I was in the heroin project and that really did me well. And then I could be admitted to a detox centre and I did not want to cancel that for one more month in the heroin project (acc-0035-5)

Ilja, who is my boyfriend, his mother died a while ago. And then we got the opportunity to move into his mother's house [in a distant city], since the rest of his family is settled already (acc-0115-3)

I was in the heroin project but my girlfriend wasn't. If I came home, I laid down on the couch and she had to go out to score! That doesn't work at all (acc-0079-4)

# Acceptance of co-prescribed heroin

## Tentative conclusions

- few marked differences between *completers* and *non-completers*
- more frequent cocaine use among *non-completers* [but *not* predictive of response]
- various and mixed profiles and motives among treatment *non-starters* and *non-completers*