COME ON

Collaborative approach to **O**ptimise **ME**dication use for **O**lder people in **N**ursing homes

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INTRODUCTION

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Inappropriate prescribing in nursing homes

- ± 50 % patient with ≥ 1 Beers drug
- ± 50 % patient with ≥ 1 STOPP drug
- ± 30 % patient with ≥ inappropriate START

(Verrue, et al. 2012)

INTRODUCTION

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INAMI
RIZIV

ROYAUME DE BELGIQUE

SERVICE PUBLIC FEDERAL
SECURITE SOCIALE

11 JUILLET 2013 - Arrêté royal fixant les conditions dans lesquelles le Comité de l'assurance soins de santé peut conclure des conventions, en application de l'article 56, § 2, alinéa 1er, 3°, de la loi relative à l'assurance obligatoire soins de santé et indemnités, coordonnée le 14 juillet 1994, pour la prise en charge des coûts de projets destinés à soutenir une concertation multidisciplinaire dans le cadre d'une politique de soins médico-pharmaceutique dans les maisons de repos pour personnes âgées et les maisons de repos et de soins.

KONINKRIJK BELGIE

FEDERALE OVERHEIDSDIENST SOCIALE
ZEKERHEID

11 JULI 2013 - Koninklijk besluit tot vaststelling van de voorwaarden waaronder het Verzekeringscomité voor geneeskundige verzorging overeenkomsten kan sluiten met toepassing van artikel 56, § 2, eerste lid, 3°, van de wet betreffende de verplichte verzekering voor geneeskundige verzorging en uitkeringen, gecoördineerd op 14 juli 1994, voor het ten laste nemen van de kosten van projecten ter ondersteuning van het multidisciplinair overleg in het kader van een medisch-farmaceutisch zorgbeleid in rustoorden voor bejaarden en rust- en verzorgingstehuizen.

STUDY

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PLANNING

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Oct 13 Nov 13 Dec 13

Methodology

Jan 14 Fev 14 Mar 14 Apr 14 Mei 14 Jun 14 Jul 14 Aug 14 Sep 14 Oct 14 Nov 14 Dec 14

Methodology | Pilot study | Education + baseline

Jan 15 Fev 15 Mar 15 Apr 15 Mei 15 Jun 15 Jul 15 Aug 15 Sep 15 Oct 15 Nov 15 Dec 15

Case conference ? ? ? ?

Jan 16 Fev 16 Mar 16 Apr 16 Mei 16 Jun 16 Jul 16 Aug 16 Sep 16

? ? Analysis Report

OBJECTIVES

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Efficient and rational use of medicines in nursing homes

- Rational prescribing
- Efficient medication management

PROJECT OVERVIEW

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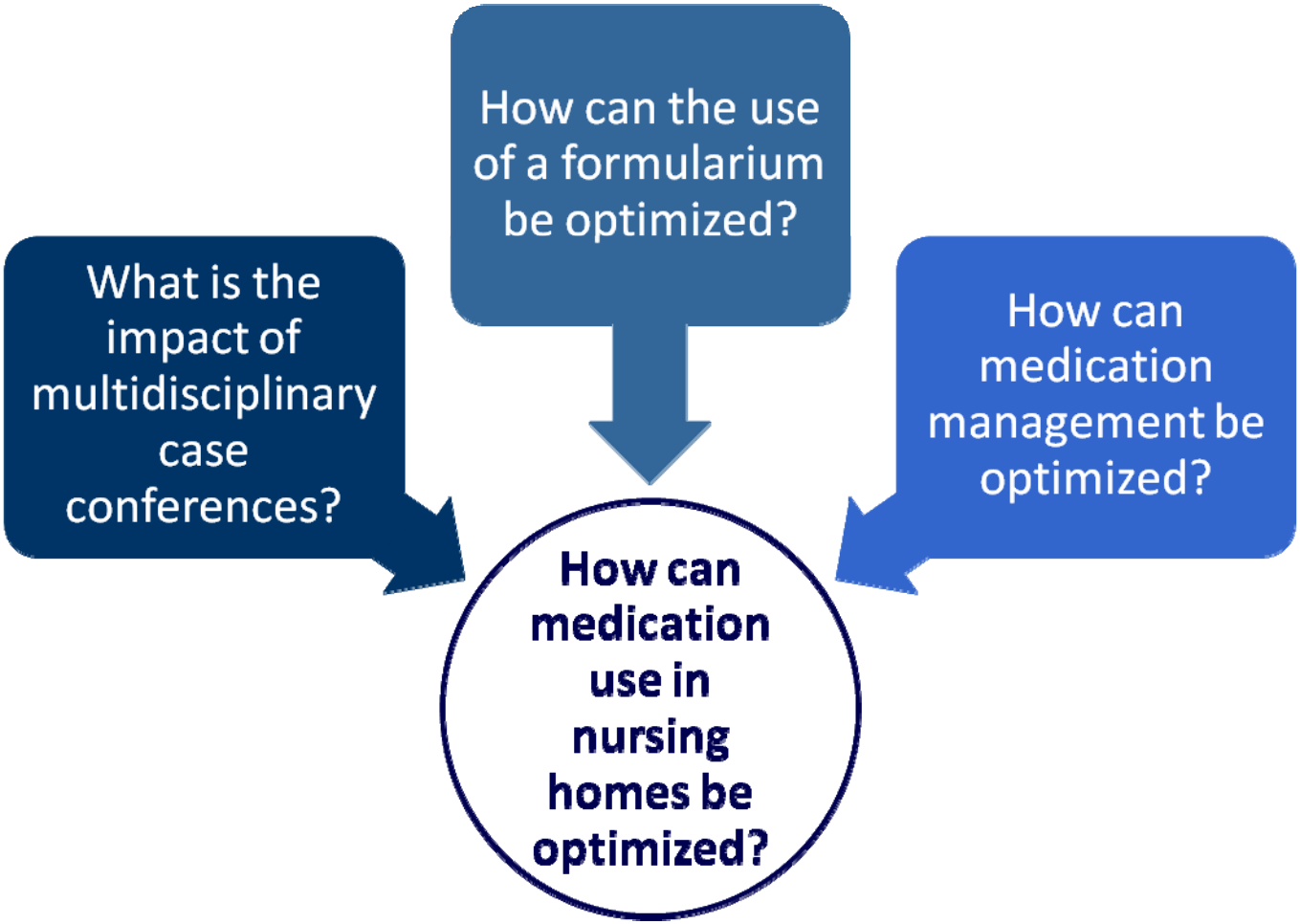

A complex, multifaceted intervention

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For nurses

- ❑Preparation and administration of drugs
- ❑Identification of ADEs

For GP's, pharmacists & nurses

- ❑Appropriate medication use
- ❑Psychoactive drugs
- ❑How to collaborate in multidisciplinary team
- ❑How to complete the data collection form

CASE CONFERENCES

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Inclusion and exclusion criteria

INCLUSION	EXCLUSION
- Patients of selected NH's	- Palliative care - Refusal to participate - Revalidation / short stay

No exclusion criteria based on the number of drugs or number of inappropriate medication

? **Inclusion based on motivated GP's or based on wards ?**

CASE CONFERENCES

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Primary outcome: different options

Measure	Example
Proportion of patients with ≥1 PIM* (difference between baseline – end of study)	C: 50% at baseline → 45% end I: 50% at baseline → 30% end
Mean/median number of PIM* per patient	C: 1 at baseline → 0.9 end I: 1 at baseline → 0.7 end
Proportion of patients with ≥1 improvement between baseline and end of study	C: 15% of patients I: 30% of patients

**PIM = Potentially Inappropriate Medication*

Primary outcome measure :

? **Which option?**

- ❑ Based on a list of explicit criteria
- ❑ Likely a combination of STOPP/START criteria (version 2?) & Beers criteria

CASE CONFERENCES

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Secondary outcomes

Component evaluated	Measures
Appropriateness of prescribing (specific)	- Proportion of residents receiving an inappropriate psychoactive medication - MAI on 2 patients / NH
Clinical relevance of intervention	- Classifying intervention according to clinical relevance
Drug use	- Number of drugs/patient - Analysis by ATC class
Clinical status of the patient	- Rate of death - Hospital admission - ED visits - Falls - Mental status : SMMSE - Physical status : Barthel index
Cost analysis	- Cost of the drugs / patient - Cost of the intervention - Quality of life ?
Humanistic outcomes	- Patient & carer's satisfaction

CASE CONFERENCES

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Component evaluated	Measures
Fidelity to the intervention	- Participation rate for educational sessions - Participation rate in training / e-learning - Number of case conferences per patient - Process/outcomes of preparation - Process/outcomes of case conference
Quality of case conferences	- Time per patient - Audiotaping / observation during case conference - Implementation rate (relative to modifications discussed during the meeting) + reasons for non implementation - Persistence of modifications - Generic effects towards other residents from the same GP or in the same NH
Attitudes and culture	- Collaboration, communication & teamwork - Patient safety - Quality of the case conferences (communication aspect) - Evidence based knowledge - Satisfaction survey ? ? **Experience?**
Facilitators and barriers	- Focus groups - Semi-structured interviews - Videotaping multidisciplinary case conferences

DESIGN – Cluster RCT

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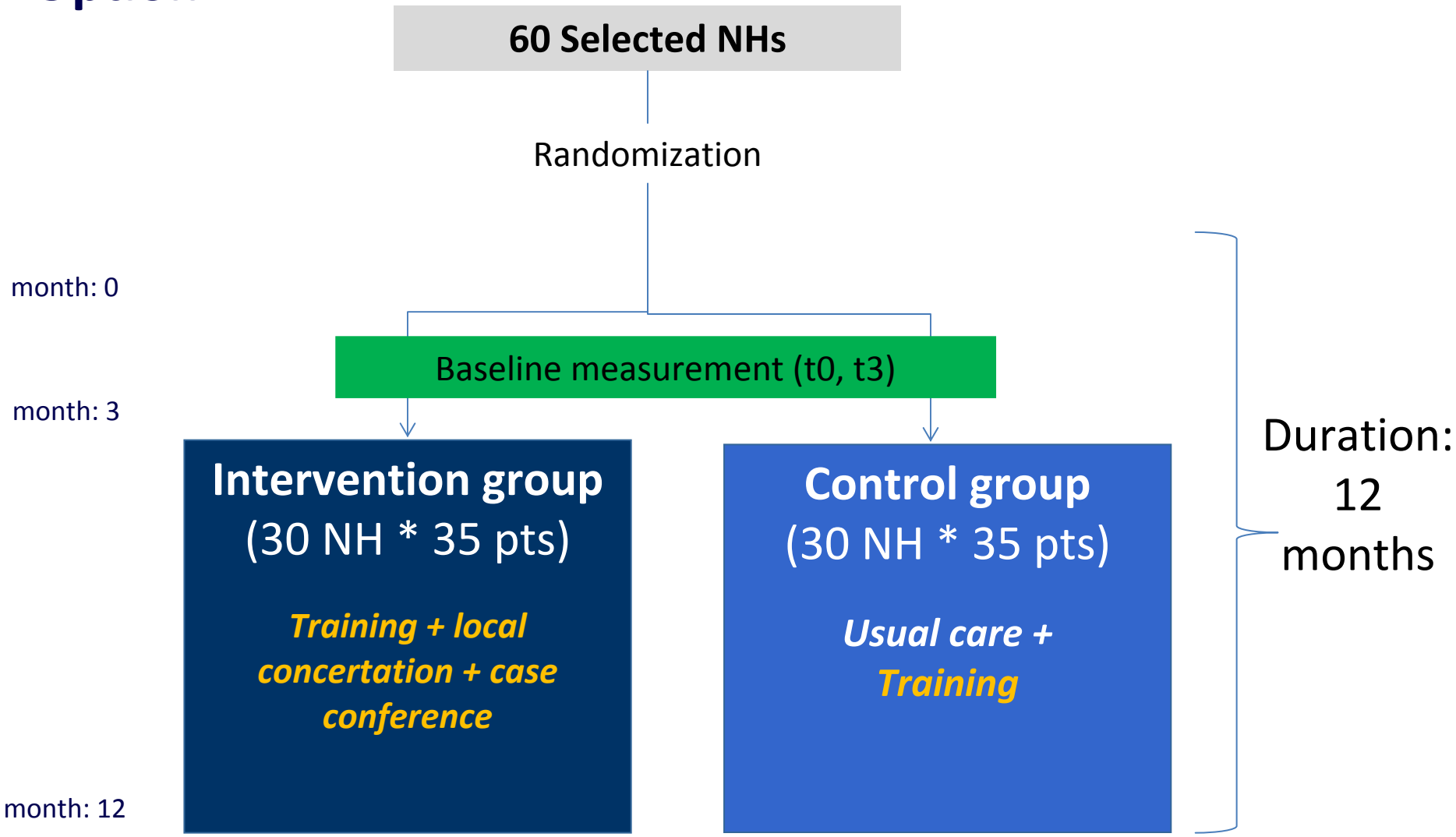
Option 1



DESIGN – Cluster RCT

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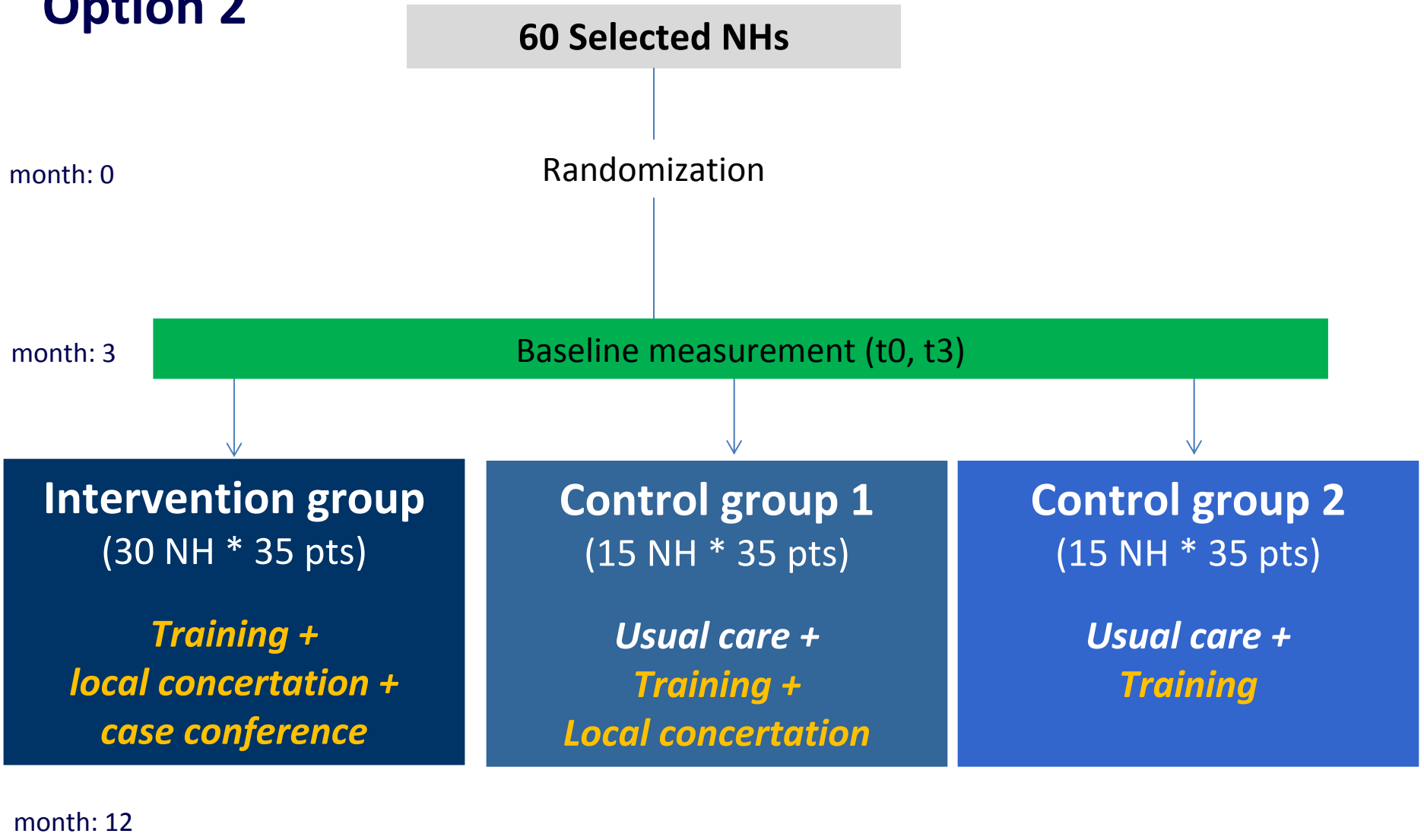
Option 2



DESIGN – Stepped Wedge

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Timetable

	T0			T1			T2			T3			T4			T5		
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
G1	0			1			1			1			1			1		
G2	0			0			1			1			1			1		
G3	0			0			0			1			1			1		
G4	0			0			0			0			1			1		

Baseline

30 nursing homes
One group = 7-8 NH's

?

Experience?
Preference?

M = Month
0 = usual care
1 = intervention

DESIGN - Multilevel

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Start of intervention:
training and concertation completed

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
G1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
G2	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
G3	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
G4	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
G5	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Start of intervention:
exact timing per NH,
depending on local concertation

Group 1

W	9	10	11	12	13	14	15	16
N1	1	1	1	1	1	1	1	1
N2	0	1	1	1	1	1	1	1
N3	0	0	1	1	1	1	1	1

DESIGN - Multilevel

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Start of intervention:
exact timing per NH,
depending on local concertation

Group 1

W	9	10	11	12	13	14	15	16	17	18	19	20
N1	1	1	1	1	1	1	1	1	1	1	1	1
N2	0	1	1	1	1	1	1	1	1	1	1	1
N3	0	0	1	1	1	1	1	1	1	1	1	1

Start of intervention:
first case conference for that patient

NH 1

W	9	10	11	12	13	14	15	16	17	18	19	20	21	22
P1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
P2	0	1	1	1	1	1	1	1	1	1	1	1	1	2
P3	0	0	1	1	1	1	1	1	1	1	1	1	1	1

DESIGN - Multilevel

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Patient	Time point	Training	Concertation	Case conference	Number of PIM's
1	1 m	0	0	0	3
1	2 m	1	0	0	3
1	3 m	1	1	0	2
1	4 m	1	1	0	2
1	5 m	1	1	1	1
1	6 m	1	1	1	1
1	7 m	1	1	1	2
1	8 m	1	1	2	1
1	9 m	1	1	2	3
1	10 m	1	1	2	3
1	11 m	1	1	3	2
1	12 m	1	1	3	2
2	1 m	0	0	0	4
2	2 m	1	1	1	2

QUESTIONS

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1. Inclusion based on motivated GP's or based on wards ?
2. Opinion about primary outcome ?
3. Experience with one of the secondary outcomes?
4. Experience with design? Preference of design?
5. Frequency of collect the data ?
   - At baseline and end
   - In between
     - ❑ Every three month
     - ❑ Every month
     - ❑ …
6. Monthly collected data: which information is essential?