

# OPTimising thERapy to prevent Avoidable hospital admissions in the Multimorbid elderly

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Reducing avoidable hospital admissions in multimorbid elderly by optimising pharmacotherapy using the STRIP method including a webbased decision support software tool with integrated STOPP/START criteria, carried out by a physician and a pharmacist.

<b>Ethische beoordeling</b>	Niet van toepassing
<b>Status</b>	Werving nog niet gestart
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

## Samenvatting

### ID

NL-OMON28225

### Bron

Nationaal Trial Register

### Verkorte titel

OPERAM

### Aandoening

Polypharmacy  
Multimorbid elderly  
Hospital admissions  
Medication review

### Ondersteuning

**Primaire sponsor:** University Medical Center

**Overige ondersteuning:** European Union and Swiss government

### Onderzoeksproduct en/of interventie

## Uitkomstmaten

### Primaire uitkomstmaten

Primary Outcome Patient-level The primary outcome is defined as the first confirmed DRA after discharge from the index hospitalisation within a period of 12 months. Hospitalisation is defined as a stay in an inpatient hospitalisation for longer than 24 hours. The following will not meet the criteria for a hospitalisation. <br>

- Visits to emergency room without inpatient hospitalisation (even if overnight) <br>
- Hospitalisation or prolonged hospitalisation for diagnostic or elective (surgical) procedures for pre-existing conditions <br>
- Admissions due to deliberate suicide attempts <br>

Confirmation of a drug-related hospital admission will be assessed by an independent and blinded adjudication committee (per site) composed of physicians and pharmacists.

Prolongation of the index hospitalisation and prolongation of any following hospitalisations will not be adjudicated for drug-relatedness. Adjudication is done according to specific guidelines (see attachment). Study-level The primary outcome of the trial will be the comparison of the two trial groups with respect to DRA and expressed by the hazard ratio as the primary effect measure.

## Toelichting onderzoek

### Achtergrond van het onderzoek

The objective of this RCT is to evaluate whether the Systematic Tool to Reduce Inappropriate Prescribing (STRIP) including STRIP assistant (STRIPA) implemented by an appropriately qualified team will lead to an improvement in clinical and economic outcomes among patients aged 70 years and more with multimorbidity and polypharmacy.

The primary objective is to assess the effect of pharmacotherapy optimisation on drug-related hospitalisations caused by non-preventable adverse drug reactions of preventable medication error related to over-, miss-, and underuse or over-, miss-, and underprescribing of prescription and non-prescription medications.

Secondary objectives will be to assess the impact of pharmacotherapy optimisation by STRIP on economic parameters, health care utilisation, falls, mortality, quality of life, polypharmacy, medication changes, activities of daily living, and patient understanding of their medication and to assess the patient's perspective on the STRIP.

### Doel van het onderzoek

Reducing avoidable hospital admissions in multimorbid elderly by optimising pharmacotherapy using the STRIP method including a webbased decision support software tool with integrated STOPP/START criteria, carried out by a physician and a pharmacist.

## Onderzoeksopzet

Inclusion will take place during the index hospitalisation

SHiM within 72 hours after admission

Follow-up telephone calls at 2 ( $\pm 14$  days), 6 ( $\pm 28$  days), and 12 ( $\pm 28$  days) months

## Onderzoeksproduct en/of interventie

STRIP is a structured method to perform pharmacotherapy optimisation. This STRIP-intervention consists of 9 steps:

1. structured history taking of medication (SHiM)
2. recording medication and diagnoses in STRIPA
3. structured drug review based on the STRIPA with the integrated STOPP/START criteria
4. communication and discussion of the structured drug review with prescribing physician with possible adaptation of the recommendation
5. shared decision-making with the patient with possible adaptation of the recommendation
6. optional revision based on new accumulating data during hospitalisation (e.g. new diagnoses, adverse drug reactions)
7. generation of GP report
8. delivery of the report to the patient and to the GP (optional additional direct communication)
9. follow-up

A structured questionnaire is used for taking the medication history: Structured History taking of Medication use (SHiM) questionnaire. SHiM will be administered on the basis of the medication which was taken at home and will not consider drugs being administered or stopped during the hospitalization.

The STRIPA is a Dutch software-based tool for the support of the pharmaceutical analysis (step 2 of STRIP) by 1) taking into account the predictable adverse medication effects, 2) advising safe and appropriate therapy using established STOPP/START criteria, 3) interaction monitoring and 4) appropriate dosing in accordance with renal function. It represents a highly efficient and user-friendly software engine capable of individually screening the clinical status and pharmacological therapy of older patients with multimorbidity to define optimal drug therapy and highlight ADR risk.

The STRIPA supported advice provides clinicians with the necessary information for optimising the individual patient's drug therapy based on a list of clinical data inputs: gender, current medical problems and diagnoses, all medicines that are actually used by the patient according to the SHIM (ATC codes) and dosage, clinical measurements such as heart rate and rhythm, blood pressure, estimated GFR (CKD-epi formula) and other relevant laboratory data. These measurements take about 10 minutes<sup>34</sup>, and SHIM takes also about 10 minutes<sup>28</sup>. The STRIPA generates 5 output datasets:

1. potential prescribing omissions of beneficial drugs
2. instances of potentially inappropriate medication
3. presence of ADRs (with use of MedDRA terminology)
4. potential adverse drug interactions
5. dosing advice

## Contactpersonen

### Publiek

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### Wetenschappelijk

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## Deelname eisen

### Belangrijkste voorwaarden om deel te mogen nemen

## (Inclusiecriteria)

Men and women 70 years of age or older Multimorbidity: 3 or more coexistent chronic conditions defined by 3 distinct ICD-10 codes with an estimated duration of 6 months or more. Polypharmacy i.e. five or more different regular drugs (defined as authorised medications with registration numbers) for more than 30 days. Estimated minimal length of stay within the cluster is sufficient to apply the intervention

## Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Inability to provide informed consent or to obtain informed consent from a proxy for patients with cognitive impairment

Direct admission to palliative care (< 24h after admission)

Has passed or will pass a systematic structured drug review during this hospitalisation or within the last two months

## Onderzoeksopzet

### Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blinding:	Enkelblind
Controle:	N.v.t. / onbekend

### Deelname

Nederland	
Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-12-2016
Aantal proefpersonen:	2000
Type:	Verwachte startdatum

## Ethische beoordeling

Niet van toepassing

Soort:

Niet van toepassing

## Registraties

### Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 47041

Bron: ToetsingOnline

Titel:

### Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

### In overige registers

Register	ID
NTR-new	NL5435
NTR-old	NTR6012
CCMO	NL58279.041.16
OMON	NL-OMON47041

## Resultaten

### Samenvatting resultaten

N.A.