

The GheOP³S-tool: an explicit screening tool to detect drug-related problems in primary care

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1. Medication review

= a structured evaluation of a patient's medications to

- optimise **medication use**
- improve **health outcomes**

= detect DRPs
+recommend interventions

- AIM

↓ over-under-misuse

↓ number of inappropriate medications

↓ healthcare (medication) costs

↓ number of hospitalisations

↓ fall incidents

↑ health-related outcomes (blood pressure, cholesterol, glycaemia)



1. Medication review

- Useful in primary care → to prevent hospitalisations
- Which patients?
 - Polypharmacy (≥ 5 chronic medications) or ≥ 10 medications
 - High-risk medication
 - Multimorbidity
 - Cognitive and/or renal impairment
 - Nonadherence
 - Experience of ADRs
 - High frailty score, high risk of falls



1. Medication review

- Structure of multidisciplinary medication review

1. Pharmacotherapeutic amnesia = patient interview
2. Pharmacotherapeutic analysis
3. Pharmacist-physician discussion: action plan
4. Discussion with patient
5. Follow-up



GheOP³S-tool





2. GheOP³S-tool

= Ghent Older People's Prescriptions community Pharmacy Screening tool

- Explicit screening tool to detect potential DRPs in the community pharmacy setting



- Development: based on literature review (18 explicit lists) + expert consensus (clinical relevance) + applicability in community pharmacy practice
- No need for clinical information
- Adapted to the Belgian market
- All types of inappropriate prescribing
- Clinical relevant criteria for older patients primary care
- Validated in the hospital setting

Tool + instructions:

<http://www.ugent.be/fw/nl/onderzoek/bioanalyse/farmzorg/tools/gheops.htm>



2. GheOP³S-tool

- 83 items, 5 lists

List	Content	Example
1	Potentially inappropriate medications, <u>independent</u> of diagnosis	Digoxine >125µg
2	Potentially inappropriate medications, <u>dependent</u> of diagnosis	Metoclopramide with Parkinson
3	Potential prescribing omissions	No folic acid with methotrexate
4	DDIs of specific relevance for older people	NSAID + VKA
5	General care-related items to be addressed in the community pharmacy	Not recording OTC-medications

List 1: Potentially inappropriate medication for older patients, independent of diagnosis - Part 1: Drug classes

No.	Item	Alternative
1	Any antidepressant ≥1 year	Check if indication is still present, if not: discontinue therapy Check co-medication
2	Any antipsychotic drug >1 month	1 st Consider need for chronic use (≈ Is original indication still present?) 2 nd Consider non-pharmacological approach
3	Any drug for arterial vascular disorders (<i>pentoxifylline, naftidrofuryl, piracetam, co-dergocrine, cinnarizine</i>)	Therapeutic abstention + recommend non-pharmacological approach (compression hosiery, discuss with GP a referral to surgery, physiotherapy...).
4	Any intermediate acting benzodiazepine (<i>alprazolam, bromazepam, brotizolam, clotiazepam, loprazolam, lor(met)azepam, oxazepam</i>) or Z-product (<i>zopiclon, zolpidem</i>) at full dose or any dose >30 subsequent days	- For sleeping disorders: Startup: 1 st Consider non-pharmacological approach 2 nd Prefer intermediate acting benzodiazepine (<i>alprazolam, bromazepam, brotizolam, clotiazepam, loprazolam, lor(met)azepam, oxazepam</i>) or Z-product (<i>zopiclon, zolpidem</i>) at <u>1/2 dose</u> of young adults >30 subsequent days: Consider non-pharmacological approach (sleep hygiene), provide GP with withdrawal plan and assure GP of support by pharmacists in withdrawal - For anxiety: consider non-pharmacological approach and switching to SSRI
5	Any short (<i>triazolam</i>) or long-acting benzodiazepine (<i>clobazam, clonazepam, clorazepaat, cloxazolam, diazepam, ethylloflazepaat, flunitrazepam, flurazepam, nitrazepam, nordazepam, prazepam</i>)	- Startup: 1 st Consider non-pharmacological approach 2 nd Prefer intermediate acting benzodiazepine (<i>alprazolam, bromazepam, brotizolam, clotiazepam, loprazolam, lor(met)azepam, oxazepam</i>) or Z-product (<i>zopiclon, zolpidem</i>) at <u>1/2 dose</u> of young adults <30 subsequent days - Chronic: Consider non-pharmacological approach (sleep hygiene), provide GP with withdrawal plan and assure GP of support by pharmacists in withdrawal - As a muscle relaxant: 1 st Consider non-pharmacological approach (physiotherapy) + verify that no Mg ²⁺ and/or vitamin B ₆ -shortages are present 2 nd Prefer intermediate acting benzodiazepine or Z-product at 1/2 dose of young adults <30

2. Elk antipsychoticum >1 maand

Rationale

Verhoogde kans op bijwerkingen: parkinsonisme, plotse dood en verhoogde mortaliteit bij langdurig gebruik in dementerende ouderen.

Afhandeling

Contacteer de arts en herinner hem eraan dat de behandeling nu één maand geleden opgestart werd. Bespreek of afbouwen/stoppen van de behandeling bij deze patiënt te overwegen valt.

De medicatie wordt stopgezet

Dag 1-4	Ongeveer 75% van de initiële dosis
Dag 5-8	Ongeveer 50% van de initiële dosis
Dag 9-12	Ongeveer 25% van de initiële dosis
Dag 13	Stop

NB: Het afbouwschema, voorgesteld door NICE, suggereert een dosisverlaging van 50% per week

Aanvullende informatie

Meerdere bronnen stellen dat omwille van de vele ongewenste effecten – vooral in oudere patiënten – antipsychotica met voorzichtigheid gebruikt dienen te worden. Ook wordt hun gebruik best op regelmatige basis opnieuw geëvalueerd. Bij oudere patiënten blijft de dosis best zo laag mogelijk en de behandelingsduur zo kort mogelijk^(1, 2).

Referenties

1. Belgisch Centrum voor Farmacotherapeutische Informatie (BCFI). *Gecommentarieerd Geneesmiddelen Repertorium 2013*.
2. Jackson S, Jansen P, Mangoni A. *Prescribing for Elderly Patients: Wiley-Blackwell; 2009*.
3. Ballard C, Hanney ML, Theodoulou M, Douglas S, McShane R, Kossakowski K, et al. *The dementia antipsychotic withdrawal trial (DART-AD): long-term follow-up of a randomised placebo-controlled trial. Lancet Neurol. 2009;8(2):151-7.*



3. Cases

Astrid, 90 years



Olivier, 72 years



Case 1: Astrid, 90 years

Diagnoses	Medication	Medication regimen
CVRM (Hypertension)	Aldactone [®] (spironolacton) 50mg Burinex [®] (bumetanide) Emconcor mitis [®] (bisoprolol)	1pd 8h 5mg 0,5pd 8h 5mg 2pd 8h-20h
Arrhythmias	Cordarone [®] (amiodaron)	200mg 1pd 8h
Impaired cognition	Exelon [®] (rivastigmine)	4,5mg 2pd 8h-18h
Constipation	Dulcolax [®] Forlax [®]	Unknown (OTC) Unknown (OTC)
Osteoporosis prevention	Steovit [®] 500/400IE	2dd 8h-20h
?	Marevan [®] (warfarine) Efexor-exel (venlafaxine) Zyprexa [®] (olanzapine) Sedergine [®] 325mg	According to INR 150mg 1pd 18h 5mg 1pd 20h (<2014) Unknown (OTC)



1. Pharmacotherapeutic amnesia = patient interview

2. Pharmacotherapeutic analysis- method:

- *Collect (medications, CI, start/stop date...) and organize (cfr. diagnoses) data*
- Screen the medication with the GheOP³S-tool
- Make a list of the criteria
- Formulate recommendations to improve medication appropriateness
- Prioritise actions: top 3!

3. Pharmacist-physician discussion: action plan

4. Discussion with patient

5. Follow-up



3. Cases

Olivier, 72 years



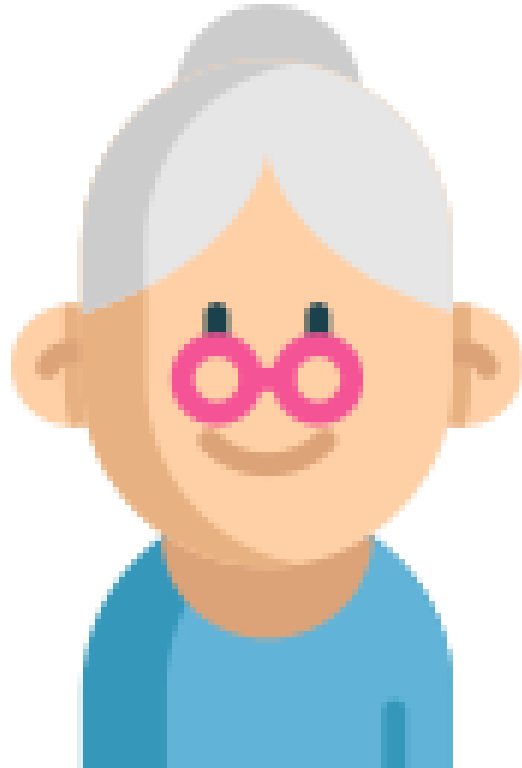
Case 2: Olivier, 72 years

Diagnoses	Medication	Medication regimen
Constipation	Picosulfate 2,5 mg Cleen enema [®] Microlax [®]	Max. 4 X per week 2 tablets PRN PRN
Artrosis	Algocod 500/30 Dafalgan forte bruiss Fastum gel Celestone (3 x temporarily treatment)	3 X pd 1 tablet 2 X pd 1 tablet PRN scheme
Insomnia (patient)	Halcion [®] 0,25 mg	1 X pd 1 tablet
Dry eyes (patient)	Tears Naturale [®]	Max. 4 X pd
?	Pantoprazole 40mg (started together with first treatment with celestone 8 months ago)	1 X pd 1 tablet



3. Extra case

Nathalie, 81 years



Case 3: Nathalie, 81 years

Diagnoses	Medication	Medication regimen
CVRM (Hypertension)	Bisoprolol 2,5mg	1 x per day 1 tablet (8h)
Overactive bladder	Ditropan 5mg (oxybutynine)	2x per day 1 tablet (8h, 17h)
Parkinson	Prolopa 100mg-25mg	2 tablets at 8h, 1 tablet at 12h and 17h
Osteoporosis prevention	Steovit® 500/400IE	2dd 8h-20h
?	Dafalgan® 500mg Efexor® 75mg (venlafaxine) Litican® 50mg Nurofen® 200mg Seroquel® (quetiapine) Zantac® 300mg (ranitidine) Movicol®	PRN 1x per day 1 tablet (17h) Max. 3x per day PRN 1x per day 1 tablet (8h) 1x per day 1 tablet (8h) PRN



Thank you for your attention!

Questions?

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