PCNE 3rd Medication Review Workshop 1

Leuven, 29th May 2012

Facilitators:

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Aim of workshop 1

- Aim: Develop systematic selection criteria for inclusion of patients in a medication review program

When to apply?

- PCNE type 1: Simple based on medication history
- PCNE Type 2: Intermediate based on medication history and full patient information
- PCNE Type 3: Advaced based on medication history, full patient an clinical information
- *(Focus today on 3)*

Aims of Medication review

- Harm reduction
- Improve clinical outcome
- Improve adherence

Assignment 1

- Discuss in small groups which patients are in highest need of a medication review. In other words:
- What risk factors can we define, that can be used for patient selection.

Ephor, an example

- www.ephor.artsengroep.nl : Expertise centre for pharmacotherapy in the elderly in Utrecht
- Core team: Dr. PAF Jansen, Prof. Dr. JRBJ Brouwers, Prof. Dr. ACG Egberts, Prof. Dr. FM Haaijer-Ruskamp, Dr. RJ van Marum, Dr. EN van Roon.

Ephor criteria, an example

- Patients >65, using 5 or more medicines (ATC-3-level) chronically and with at least one of the following risk factors:
  - reduced kidney function (eGFR<50 ml/min/1,73m2)
  - reduced cognition (ICPC 70 or ICPC P20, dementia and pre-dementia)
  - increased risk for falling (patient fell once or several times in the preceding 12 months)
  - signals of reduced adherence to therapy
  - not living independently (nursing home – elderly home)
  - with unplanned hospital admission(s)

Ephor Filter method (older but more practical)

- A structured aproach to medication review for the elderly, includes patient selection based on risk profiles
- Filter 0 is selection filter
- 6 essential filters, to be adapted to culture/country
- Developped by Brouwers et al. at University of Groningen, using ideas of Jansen et al at University of Utrecht
- No longer supported?

Filters

- Filter 0: Selection of patients at risk
- Filter 1: Adapted and simplified Beers list
- Filter 2: Dosage check, incl. kidney function
- Filter 3: Medicines and co-morbidity
- Filter 4: Missing medication
- Filter 5: Lab checks where necesary
- Filter 6: Stop drugs
- Action: Start or stop medication and lab checks

Filter 0: patient

- Scoring system for risk factors for drug related morbidity
- Scoring based on age, number and type of drugs, drugs with small therapeutic margins and kidney function
- Age, number of drugs and kidney funcion are most important criteria

Age score (score 1)

Age range	Score
< 65	0
65-75	1
76-85	2
>85	3

Number of medicines (score 2)

# medicines	Score
< 6	0
6-9	2
> 9	4

Number of medicines with small therapeutic index (score 3)

# medicines	Score (Max 3 points)
Acenocumarole/	1
Anti-epileptics	1
Digoxin	1
Lithium	1
Methotrexate	1
(etc.)	

Medicines in one of the following groups (score 4)

# medicines	Score (Max 6 points)
Cardiovascular	1
Antidiabetics	1
Anticoagulants	1
Chronic psychiatric/neurology medication	1
Asthma/COPD medication	1
NSAIDs	1
Opoids	1
Corticosteroids (oral)	1

Kidney function (score 5)

# medicines	Score
GFR >50	0
GFR 31-50	2
GFR <31	4

Filter 0: Triage

Age	<65 66-75 76-85 >85	0 1 23
No of drugs	<6 6-9 >9	0 2 4
No drugs small ther. Index Max 3 points	Acenocoumarol Anti-epileptics Digoxin Lithium Methotrexate etc.	1 1 1 1 1

Drug groups Max 6 points * = chronic	Cardiovascular Antidiabetics Anticoagulation Neurology/Psych* Astma/COPD NSAIDs Opoids Corticosteroids	1 1 1 1 1 1 1 1
Kidney function	GFR >50 GFR 31-50 GFR <31	0 2 4

Drugrelated problems and riskfactors

Charlotte Rossing

Head of Research & Development

Pharmakon; Denmark

Literature on DRP and risk factors

- Danish evidence database
  - Knudsen et al; Incidence of drug-related problems and adverse drug events in primary care; Pharmakon; 2004 (2006)
  - General search in the database
- Report on Risk drugs
  - Danish health and medicines authority; 2011
- Room for review
  - A guide to medication review: Task force on medicines partnership and national collaborative medicines management service program; 2002

What's a risk-factor?

- Cause higher risk of DRP with potential harm for patient and society

- Incidence of drug-related hospital admissions
  - 6-14% DRP admission meta-analysis
  - 3% admissions are lethal
  - 80% admissions are severe

- Incidence of drug-related visits to the emergency department
  - Large studies shows 0.05-0.86% - smaller studies 10-22%
  - 9-25% get admitted

Risk-factors: hospital admissions and visits to emergency units based on DRP

- Age
  - Getting older causes DRP (60-70)
- Number of drugs
  - rising number of drugs gives rising DRP (3+)
- Gender
  - Female patients are more probable to get admitted to hospital due to DRP

High-risk drugs

- Report based on literature, severe adverse drug events in Danish Patient safety Database, complaints to the National agency for patients rights and complaints

- A drug causing severe* preventable adverse drug events
  - Pharmacology
  - Errors in the medication-process
  - Inappropriate use

*Hospital admissions, prolonged admission, acute life-saving treatment, permanent problems, death

High-risk drug groups

- Antibiotics
- Antidepressents
- Antipsycotics
- Cadiovascular drugs
- Benzodiazepines
- Cytostatics
- Diuretics
- Insulin
- NSAID
- Strong morfica

Room for review – at risk of DRP

Based on literature and a review panel

- Taking 4 ore more medicines every day
- Recent discharge from hospital with complex medicines
- Receiving medicines from more than one source
- Significant change in medication regimen in the past 3 months
- Taking medicines requiring special monitoring (eg Lithium), with side effects (eg NSADI), narrow therapeutic range (eg Digoxin)
- Symptoms suggestive of an adverse drug reaction
- where non-compliance is suspected or known to be a problem

Room for review – special needs

- Older people
- Residents at nursing homes
- Learning difficulties
- Sensory impact such as poor sight og hearing difficulties
- Physical problems, eg arthritis, inability to swallow
- Mental states such as confusion, depression, anxiety, serious mental illness
- Communication difficulties
- Literacy of language difficulties
- Minority ethnic groups
- Refugees and asylum seekers

Other factors

- Lower Social-class
  - Has more hospital admissions
- Non-frequent visitors at the GP
- Disabled persons
  - Often has several risk factors

Dilemma's

- Young person with 8 medicines and stable condition versus older demented person with 3 medicines and kidney failure.

- Is norm that we must do good & save lives, or that we must do as good as possible within the financial & system bounderies?

Assignement 2

- Prioritising criteria **OR** assigning weight OR both?
- How?
- Take the list and create a prioritising algorithm and define when a medrev should be obligatory

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