Best Practice Polypharmacy

Mirjam Kokenberg
QIPC, The Netherlands
Polypharmacy in 10 minutes

The development of a polypharmacy intervention which consists of optimising pharmacotherapy of an individual multi-drug-user and the ongoing implementation of this intervention nationwide at this moment.
Why polypharmacy?

- People > 65 years often have multi-morbidity and often are multi-drug-users
- Many health care workers involved
- Starting new medication appears to be easier than stopping/changing
- Who has overview and responsibility over the entire treatment?
Intervention

- Medication review
- Combining professional expertise of physician and pharmacist
- Proposal for changes in medication
- At least agreement of patients
- Medication according to Standards for Dutch general practitioners and therapeutic handbooks
## When?

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>3 pilot projects in 3 pharmacies</td>
</tr>
<tr>
<td>2000</td>
<td>Lobbying</td>
</tr>
<tr>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>Insurance company is interested</td>
</tr>
<tr>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Best Practice Polypharmacy</td>
</tr>
<tr>
<td>2005</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Nationwide implementation</td>
</tr>
<tr>
<td>2007</td>
<td></td>
</tr>
</tbody>
</table>
3 pilot projects in 3 pharmacies (1999-2001)

- We studied the organisation, feasibility and financial outcomes
- We used experiences from each pharmacy in the next one
- Results:
  - DRP’s were found and solved
  - Quality of life did not decrease
  - Savings in costs for medication
  - Cooperation increased
Insurance company (2004)

- After two years of lobbying a major insurance company showed interest in this approach
- Implementation study with 15 pharmacists and 31 physicians to find the appropriate way
- Insurance company paid € 50 per hour to physicians and pharmacists
Results

- 839 patients
- 304 patients (36 %) needed an intervention (1.7 / patient)
- 504 interventions
  - Stopping: 44 %
  - Starting: 13 %
  - Replacing: 20 %
  - Dosage: 23 %
- 97% of the patients thinks a periodically performed medication review very important
- 36% of the pharmacists and physicians think their professional working relation has increased.
- Savings (medication): € 45 per year per analysed patient
- Patient selection: 6 or more drugs, all ages
- Face to face consultation
Best Practice Polypharmacy (2005)

- Dutch Ministry of Health was looking for initiatives from health care workers to improve patient’s care which can be used nationwide

- The QIPC polypharmacy intervention is appointed, together with the DGV\(^1\) polypharmacy intervention, as Best Practice Polypharmacy

\(^1\) DGV: Dutch Institute for safe use of medicines
Nationwide implementation (2006, 2007)

- Dutch Ministry of Health is offering a grant for the nationwide implementation
- QIPC and DGV are training and coaching the physicians and pharmacists
- Physicians and pharmacists are implementing medication review in daily practice
- Some insurance companies are paying physician and pharmacist per analysed patient
Results

2006:
• 43 groups of pharmacists and physicians
• Approximately 325 physicians and 100 pharmacists
• Target number of patients: 6500-9750
• Preliminary results:
  - 707 patients
  - 47% of patients need intervention (1.3 / patient)
  - 437 interventions
  - Stopping: 32% (2004: 44%)
  - Starting: 17% (2004: 13%)
  - Replacing: 18% (2004: 20%)
  - Dosage: 34% (2004: 23%)
# Practical tools

<table>
<thead>
<tr>
<th>Genesmiddel</th>
<th>Sep 97</th>
<th>Okt.</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan 98</th>
<th>Feb</th>
<th>Mrt</th>
</tr>
</thead>
<tbody>
<tr>
<td>NITROSTAT TABL 0,4MG</td>
<td>IG → Z1T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NORVASC TABL 5MG</td>
<td>1.1T → 1.1T → 1.1T →</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORENITEC TABL 20/12,5MG</td>
<td>1.1T → 1.1T → 1.1T → 1.1T →</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CELESTODERM CREME 1MG/G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BETAMETHASON CREME 1MG/G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BETAMETHASON LOTION 1MG/G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PREMARIN DRAG 0,625MG</td>
<td>1.1T → 1.1T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Data
### Nieuwe interventie

**Arts:** testarts  
**Verzekeraar:** achmea  
**Soort wijziging:** Kies een soort wijziging  
**Datum overleg:** Kies de datum van het overleg

### Situatie vóór interventie

<table>
<thead>
<tr>
<th>ATC code</th>
<th>Kosten per dag</th>
<th>Omschrijving medicijn (optioneel)</th>
</tr>
</thead>
</table>

### Situatie ná interventie

<table>
<thead>
<tr>
<th>ATC code</th>
<th>Kosten per dag</th>
<th>Omschrijving medicijn (optioneel)</th>
</tr>
</thead>
</table>

### Bestaande interventies

<table>
<thead>
<tr>
<th>Datum overleg</th>
<th>Arts</th>
<th>Verz</th>
<th>voor interventie</th>
<th>na interventie</th>
<th>status</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-09-2006</td>
<td>testarts</td>
<td>achmea</td>
<td>C07C, 1,00, Staken</td>
<td>Z, 0,00</td>
<td>00 - bekeken</td>
</tr>
<tr>
<td>12-09-2006</td>
<td>testarts</td>
<td>achmea</td>
<td>H04A, 1,00, Lagere dosering</td>
<td>H04A, 0,50</td>
<td>01 - doorgevoerd</td>
</tr>
</tbody>
</table>
Success

- Intervention on pharmacotherapy
- Intervention should fit every day practice
- Support by practical and easy to use protocols, ICT, education, coaching
- Appropriate data open many doors
- Payment per patient
- Creativity!
Don’t forget it is all about the patient...

Cooperation between physicians and pharmacists achieves outcomes which neither of them could achieve individually.
Top 15

A02B ulcus-pepticum middelen en gastro-oesofageale reflux 56
C03A "low-ceiling" diuretica, thiaziden 26
N05C hypnotica en sedativa 23
N05B anxiolytica 17
C07A beta-blokkers 16
C10A antilipaemica, enkelvoudig 16
C01A hartglycosiden 14
N07C vertigomiddelen 13
B01A antithrombotica 13
M01A niet-steroide anti-inflammatoire en antireum midd. 12
R03A sympathicomimetica, tracheale 12
C03C "high-ceiling" diuretica" 11
C09C angiotensine-ii-antagonisten 10
C01D vasodilatantia bij hartziekten 9
B03A ijzerpreparaten 8