Development and implementation of a national drug formulary to promote appropriate drug use in nursing homes

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Background and objectives
In 1990 a drug formulary was developed locally by a multidisciplinary team of nursing home representatives and general practitioners. The main results of its implementation were an improved communication between health care professionals and a reduction in drug use and its associated costs. Our objective was to implement the use of such a formulary at the national level.

Design
- First phase: update of the local formulary through consensus reached by a nation-wide panel of experts (doctors and pharmacists)
- Second phase: implementation in nursing homes (ongoing phase)

Setting
Belgian nursing homes and general practitioners caring for patients in nursing homes

Main outcome measures
- First phase: key information on the appropriate use of drugs for common diseases in nursing homes
- Second phase: acceptability of health care professionals using the formulary

Results
In the first phase, the local formulary was updated. We addressed 13 therapeutic areas and selected 130 medicines to be preferred for use in nursing homes. This selection was based on good quality studies in primary care. For each drug, information is provided on proven efficacy, prescribing and administration modalities, cost, and preparations available in Belgium. An accompanying publication (Geneesmiddelenbrief) explains the rationale of this selection.

Selection of medicines to be included in the formulary: process
- Evidence of efficacy supported by good-quality clinical trials (double blind, randomised, older patients included)
- Most important criteria
- Preparations available in Belgium, facility of use, cost
- Selection of one (or a few) molecule(s)
- List of brand names and preparations + modalities for reimbursement + cost of each preparation

Example: Medicines selected for the treatment of asthma
Drugs selected: beclomethasone, salbutamol, ipratropium, salbutamol+ipratropium, formoterol, methylprednisolone, theophylline

Drugs NOT selected (and justification for not selecting these drugs)
- Fluticasone: more expensive than beclomethasone
- Fix association β2-agonist + inhaled steroid: no added benefit
- Fix association fenoterol + ipratropium: more side-effects
- Leukotriene receptor antagonists: no evidence of efficacy in older patients
- Antihistamines: no evidence of efficacy in older patients

In the second phase, issues on the implementation of the formulary have been discussed together with Belgian organisations involved in the pharmaceutical care of older patients. The implementation is ongoing and includes:
- Training of the multidisciplinary nursing homes teams
- Workshop sessions with local groups of general practitioners
- Use as a teaching tool in medical schools

Conclusions
This national formulary answers the need for an appropriate reference tool for the care of older patients in Belgium. In addition to regular follow-up and updating, we intend to measure its impact on prescribing patterns and on clinical and economic outcomes.

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