Measures to reduce disposal of pharmaceuticals in distribution and health care

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A Swedish National Drug Strategy

• **Vision**
  - Rational medicine use for the benefit of the patient and the society

• **Long term goal**
  1. World class medical results and patient safety
  2. Health care equality
  3. Cost effective medicine use
  4. Good innovative climate for products and services
  5. Minimal negative environmental impact
Mission given to the Medical Products Agency (MPA)

- Investigate what more can be done nationally to reduce the disposal of drugs or other ways to reduce the environmental impact of drug use.
  - One part of the investigation focused on data collection in distribution and health care
    - already implemented measures to reduce unused medicines to evolve
    - reasons for unused medicine appearing and a ranking of the reasons
    - quantitative data and statistics related to amounts of unused medicine
Actors included in data collection

• **Major pharmaceutical wholesale business companies**
• **Major actors in the retail trade**
  – pharmacies
  – food chains
• **Those responsible for hospital and home care**
  – 21 county councils
  – A selection of the 290 communities
Scale of waste medicines 2011 in Sweden
The Patient Role

- Report:

- Review:
Reasons in wholesale business (250 tons)

- Expired (~80%)
- Crashed/damaged (~10%)
- Withdrawal/deregistration (~10%)
Reasons for unused medicines in pharmacies

- Expired
- Crashed/damaged
- Return rules
- Stock level problems
- Complaints
- Withdrawal
- Preparation waste
- Not called for
- Temperature damage
- Unspecified obsolescence
- Various
Reasons for unused medicines in food chains

- Faulty delivery
- Crashed/damaged
- Unspecified obsolescence
- Complaints
- Stock picking error
Reasons for unused medicines in county councils

- Expired
- Rare use
- Inadequate stock logistics
- Opened package
- Inadequate package
- Prepared, not used
- Many stock places
- Prescription change
- Deceased
Reasons for unused medicines in communities

- Deceased
- Prescription change
- Potential overprescription
- Expired
- Prescription put out
- Drug change
- Recycling prohibited
- Dose not taken
- Medication finished
- Recovery
- Non-compliance to SOPs
- Various
Consolidated frequency data for reasons

- Pharmacies
- Food chains
- County councils
- Communities
Reduction of unused medicines

• wholesale
  – Lowering of crashed/damaged goods in transport and handling

• pharmacies
  – Optimize stock logistics and stock turnover
  – Assortment adaption to the generic substitution system

• food chains
  – Optimize stock logistics and assortment
Reduction of unused medicines (continued)

• County council
  – Optimize stock logistics and assortment
  – Drug automates instead of store-rooms for dispensing
  – Trial packages or starter packages for long-term treatment
  – Choose drug products with long storage stability
  – Choose small packages for rare use drugs

• Communities
  – Trial packages or starter packages for long-term treatment
  – Use dose dispensing
  – Individual dispensing from store for short-term treatment
Investigation proposals

• Develop a comprehensive and clear national solution for disposal of unused medicines from the public including sharps and needles

• Environmental risk is part of the assessment for OTC status

• Co-operative and regular national campaigns on disposal of unused drugs to maintain/improve the public attitude and knowledge level
Proposals at the EU-level

• Improved environmental risk assessment of pharmaceuticals before market authorisation

• Environmental risk shall be included in the risk/benefit assessment for market authorisation of human pharmaceuticals

• GMP-rules shall include environmental aspects to prevent harmful emissions of APIs from pharmaceutical production
Thanks for your interest!

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