

**THE PHARMACIST'S  
ROLE IN THE DRUG  
AND THERAPEUTICS  
COMMITTEE (DTC)**  
OPPORTUNITETS AND PRIORITISATION

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**LEARNING OBJECTIVES**

After the session, you should be able to:

- ✓ Decision making process in DTC
- ✓ Creating and updating the fomulary according to pharmacoeconomic and therapeutic data
- ✓ Case studies presentation

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**AGENDA**

- Background
- Learning objectives
- Drug and Therapeutics Committee (DTC)
- Drug formulary and formulary management
- Implementation



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# DRUG AND THERAPEUTICS COMMITTEE

DEFINITION, GOAL/OBJECTIVES AND FUNCTIONS

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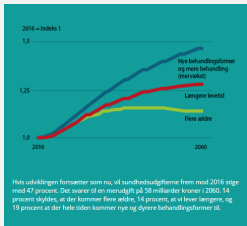
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## WHY DO WE NEED TO PRIORITISE AND DO DTCs HAVE A ROLE?

- ❖ People live longer – get older
- ❖ More people have chronic diseases
- ❖ New (Expensive) (drug)treatments
- ❖ Expectations from the patients
- ❖ More people wishes health care services
- ❖ Limited amount of ressources



Source: www.regioner.dk

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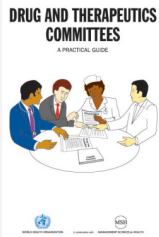
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## DEFINITION OF DTC

- The DTC is a policy framing and recommending body to the medical staff and the administration of the hospital(s) on matters related to medicine use
- The DTC provides a forum, allowing all the relevant people to work together to improve health care delivery, whether in hospitals or other health facilities. In many developed countries a well functioning DTC has been shown to be very effective in addressing drug use problems.



Source: WHO, Drug and Therapeutics Committees – A practical guide

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## GOAL OF THE DTC

to ensure that patients are provided with the best possible **costeffective and quality** of care through **determining** what medicines will be available, at what cost, and how they will be used.

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## OBJECTIVES OF THE DTC

In order to achieve this goal a DTC will have the following objectives:

- to develop and implement an efficient and cost-effective formulary system which includes consistent standard treatment protocols, a formulary list and formulary manual
- to ensure that only efficacious, safe, cost-effective and good quality medicines are used
- to ensure the best possible drug safety through monitoring, evaluating and thereby preventing, as far as possible, adverse drug reactions (ADRs) and medication errors
- to develop and implement interventions to improve medicine use by prescribers, dispensers and patients; this will require the investigation and monitoring of medicine use.

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## FUNCTIONS OF THE DTC

- There are many possible functions of DTCs, and the committee must decide which to undertake as a priority; this decision may depend on local capacities and structure.
- Furthermore, certain functions will require collaboration with other committees or teams, for example the infection control committee or the procurement team.

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Developing treatment guidelines	<p><b>THE MOST COMMON RESPONSIBILITIES AND ACTIVITIES OF THE DTCs</b></p> <p>For more reading see WHO – Drug and Therapeutics Committee; a practical guide</p> <p><a href="http://apps.who.int/medicinedocs/en/d/Jjs4882e/">http://apps.who.int/medicinedocs/en/d/Jjs4882e/</a></p>
Developing and updating drug formulary	
Performing formulary management	
<ul style="list-style-type: none"> <li>• Therapeutic interchange</li> <li>• Use of patient's own drug</li> <li>• Educational training of prescribers regarding drug cost</li> <li>• Review of new therapeutic agents</li> <li>• Approval of use of non-HDF drugs</li> <li>• Non-HDF request form</li> <li>• Regularly review of non-HDF</li> <li>• Contacting physicians to change a non-HDF drug to a drug from the HDF</li> </ul>	
Developing drug use policy and guidelines	
Performing drug use evaluation activities	
Providing prescribers with objective information	
<ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Bulletins</li> <li>• Results of drug use evaluation</li> </ul>	

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### DTC – DECISION MAKING PROCESS

It depends on:

- The organisation of the DTC
- The functions of the DTC
- The responsibilities

The pharmacist has to present the medicine use problem considering patient, economy, safety and involving relevant people in the process.

\*HTA – Health Technology assessment.  
See: [http://www.who.int/medical\\_devices/assessment/en/](http://www.who.int/medical_devices/assessment/en/)

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### EXERCISE - PHARMACIST'S ROLE – WHAT DO YOU PRIORITISE?

Discuss 2 and 2 in 2 minutes

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### WHERE DO THE PHARMACIST'S HAVE A ROLE?

- Develop hospital drug formulary/treatment guidelines/therapeutic interchange
- Rational pharmacotherapy (patient, economy, safety)
- Better patient safety
- Drug shortage
- Procurement
- Decision support in the CPOE – Computer order entering
- Implementation of DTC decisions at the hospital
- Facilitate implementation at the hospital
- Monitor and follow up on medicine use
- Evaluate (do the doctors follow the guidelines/drug formulary?)
- Economy
  - Health Technology Assessment (HTA)
  - Medicine budget
- Better medicine processes (quality in workflows)



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## DRUG FORMULARY AND FORMULARY MANAGEMENT

PHARMACIST'S ROLE

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### DRUG FORMULARY - DEFINITION

A formulary is defined by WHO as a list containing essential drugs that are cost-effective, safe, available locally and of a quality that will satisfy the need of health care organizations and the patient.

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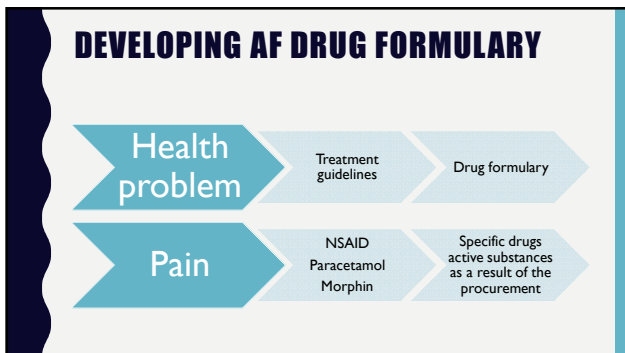
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### WHY DO WE DEVELOPE DRUG FORMULARY?

- Example - Number of drugs in Denmark:
  - > 5500 drugs (Drugs with somatropin and different preparation/device)
  - > 2700 productname (Drugs with the active ingredient somatropin)
  - > 1100 active ingredients ~ substances (somatropin)

"mee too" drugs ~ therapeutic equivalent or different devices

The slide discusses the reasons for developing a drug formulary, using Denmark as an example. It lists the number of drugs, product names, and active ingredients. A thought bubble highlights 'mee too' drugs, which are therapeutic equivalents or different devices. A molecular structure is shown on the right.

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### HOW DO WE CHOOSE THE DRUG TO BE USED?

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graph TD; NTG[National treatment guidelines] --- RDF[Regional drug formulary]; RDF --- H[Hospital]; H --> D[Drugs used for the patients in the hospital];
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- Which specialities do the hospital have?
- What kind of diseases do you treat in each speciality?
- Do you have guidelines for therapeutic interchange?
- Do you have guideline for using patient's own drugs?

The diagram shows how national and regional guidelines influence the selection of drugs for hospital use. It lists several key questions to consider when choosing drugs.

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## DRUG USE AND THERAPEUTIC HIERARCHY

- NEW therapeutic princip – REAL innovation
  - New mechanism of action
  - Better and/or more safe than the old treatment
  - Unmet medical need
- 'Me too' – pseudo innovation
  - Therapeutic equivalent drugs
  - Biosimilars
  - New preparation (device etc.)
- Generica
- Obsolete drugs




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Country	Method	Description	EXAMPLES OF DRUG SELECTION METHODS
The Netherlands	System Objectified Judgment Analysis (SOJA) (Janknege R et al. 2007)	A model based on rational selection criteria such as clinical efficacy, adverse effects, dosage frequency, interactions, cost, and documentation. Besides rational selection criteria, other factors were included in decision-making such as emotional, personal financial and unconscious criteria.	When developing treatment guidelines and recommendation for drug formulary different methods exist.  However all methods do have a systematic approach for choosing the "right" drug.
Northern Ireland	Safe Therapeutic Economic Pharmaceutical Selection (STEPS) (Scott M et al. 2007)	STEPS methodology was built on four steps. Step I: clinical evaluation (incorporating elements of SOJA), Step II: risk assessment, Step III: budgetary impact analysis, Step IV: final procurement selection.	
USA	Formulary Leveraged Improved Prescribing (FLIP) (Schiff GD et al. 2012)	A tool developed as part of a project at two US public academic hospitals consisting of a checklist of 48 questions for evaluating drugs requested for addition in the formulary. The questions were related to evidence of need, efficacy, medication, safety, misuse potential, cost issues, and decision-making processes.	
Denmark	GRADE approach (Grading of Recommendations Assessment, Development and Evaluation) <a href="http://www.gradeworkinggroup.org">http://www.gradeworkinggroup.org</a> ( <a href="http://www.medicinigrader.dk">www.medicinigrader.dk</a> – English version exist)	<ol style="list-style-type: none"> <li>1. Formulating clinical questions and relevant PICO descriptions</li> <li>2. Systematic literature search</li> <li>3. Selecting literature</li> <li>4. Assessment of the risk of bias</li> <li>5. Summary of results</li> <li>6. Assessment of confidence in the estimates</li> <li>7. Development of guideline recommendations</li> </ol>	

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## DRUG FORMULARIES AT DIFFERENT LEVELS

Drug formulary	Developed by
National drug formulary	Based on guidelines from the Medicin Council (No list exist – however the formulary can be found for each disease area) <b>The pharmacist should be represented</b>
Regional hospital drug formulary	DTC responsible Specialist groups including pharmacist's <b>The pharmacist should be represented</b>
Ward list	The ward (managing doctor at the ward) develop the list together with the <b>pharmacist</b>

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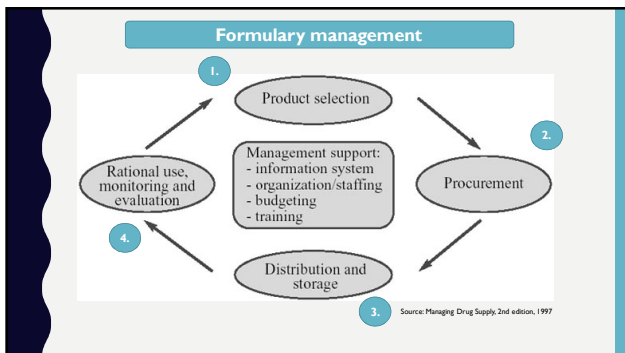
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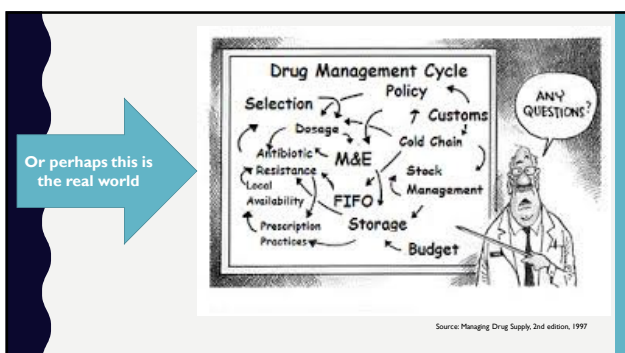
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## DRUG SHORTAGE

Considerations (model from Hospital Pharmacy North Denmark region):

- Generics in other strengths, package, device etc.
- Therapeutic equivalent drug (PPI, LMWH, etc.)
- Drugs not marketed in fx Denmark but in another country
- Extemporaneous drug (preparation of a drug to a specific patient (or situation))

**INVOLVETHE DTC IF NESECCARY**

**Medicines shortages in European hospitals**

- 99% of hospital pharmacists report experiencing problems with medicines shortages in the past year
- 63% of hospital pharmacists report that medicines shortages are a weekly, sometimes daily, occurrence
- 77% of hospital pharmacists report that medicines shortages have become worse over the past year

Source: 10th European Association of Hospital Pharmacists on medicines shortages, September 2010-February 2012

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# IMPLEMENTATION MONITORING EVALUATION

PHARMACIST'S ROLE

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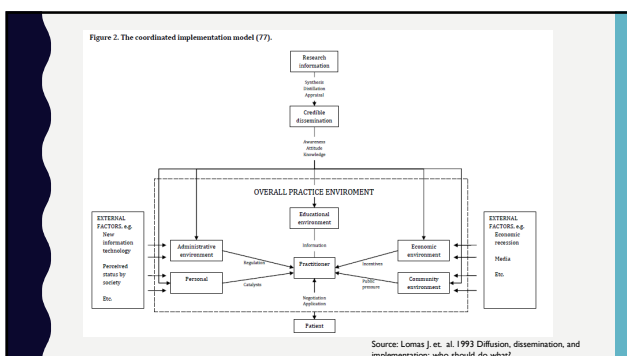
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## IMPLEMENTATION

**Multifaceted interventions are needed**

Different kind of information combined with dialogue, written material and drug-use evaluation (multifaceted intervention) has the biggest impact on implementation.

Economic incentives => money always has an effect

Inspiration from the pharmaceutical industry:

- Academic detailing (face to face visit)
- Group detailing

Grimshaw JM, Thomas RE, MacLennan G, Fraser C, Ramsay CR, Vale L, et al. Effectiveness and efficiency of guideline dissemination and implementation strategies. Health Technol Assess 2004 Feb;8(6):iii-72.

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## IMPLEMENTATION AND TYPE OF SWITCH BETWEEN DRUGS

- Simple switch between drugs =>
  - A list is published at the home page
- Drug switch with high complexity =>
  - Wxample change in:
    - Strenght
    - Device
    - Another way the drug is going to be handled
  - More information/dialogue



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## NON-ADHERENT TO THE GUIDELINES/FORMULARIES



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- Explanatory variables:
  - Patient did not come to the appointment
  - No new patient included
  - Small patientpopulation
- Resistance against change?
- What can the pharmacist do?

**Discuss 2 and 2 in 2 minutes**

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# THANK YOU FOR LISTENING

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