

# Role of the hospital pharmacist in DUE

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# Design DUE

## A. Preparation

1. Drug choice
2. Composition DUE-workgroup
3. Literature study
4. Defining guidelines (consensus meeting)
5. Choice of ward(s)
6. Protocol (objective, methodology)
7. Approval Ethical Committee
8. Pilot study (registration form)

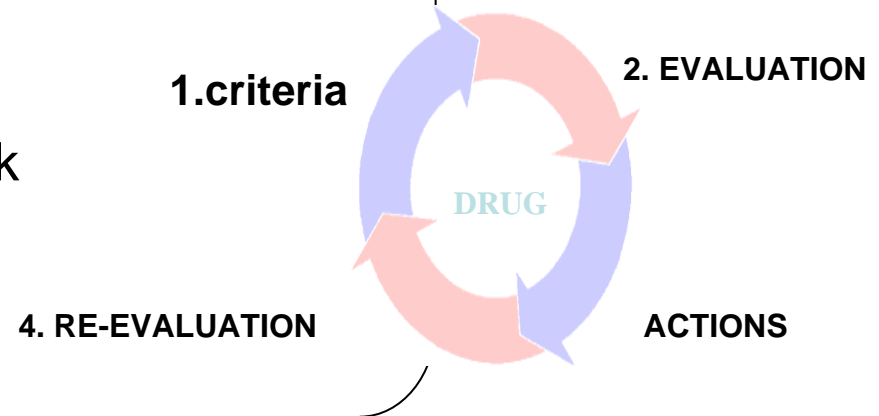
•For internal use  
•Reveals bottle necks

## B. Realisation

10. Data collection
11. Evaluation and feedback

## C. Follow up

12. Actions
13. Publication of results



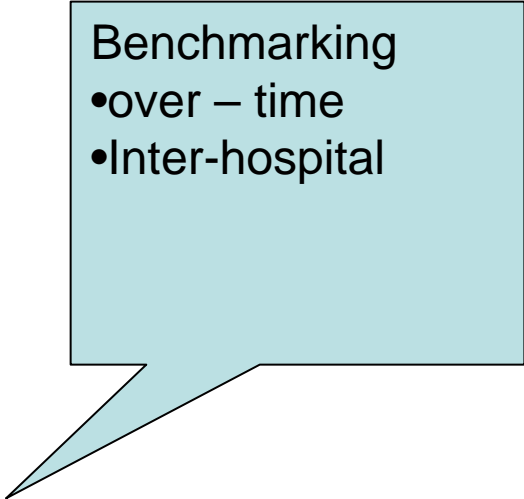
# Appropriate prescribing of antibiotics?

## Fluoroquinolones

Indication antibiotic therapy	Number of courses	Inappropriate initial therapy	More effective alternative	Less broad alternative	Inappropriate continuation (>72hours)	More effective alternative	Less broad alternative	Excessive length
<b>FLUOROQUINOLONES COURSES</b>								
Lower and upper urinary tract infection	3	0	-	-	1	1	-	-
Suspicion or documented <i>Pseudomonas aeruginosa</i> after 3 days use betalactam +/- aminoglycoside on antibiogram	5	1	1	-	2	2	-	-
Late onset nosocomial infection	5	0	-	-	2	-	2	-
Osteomyelitis and/or prosthesis infection with gram-negatives	1	0	-	-	0	-	-	-
Others	2	1	1	-	0	-	-	-
Total courses	16	2	2	-	5	3	2	-
Percentage (%)	100	13	13	0	31	19	13	-

# Measuring quality indicators for antibiotic use

- **Structure:**
  - E.g. Hospital multi-disciplinary antibiotic management team (AMT)
- **Process:**
  - E.g. Prophylaxis is started preoperatively within 30-60 minutes before incision
- **Outcome:**
  - E.g. Percentage of consumption IV versus IV+oral



Benchmarking

- over – time
- Inter-hospital

# Operational & methodological conditions

- Numerator and denominator
- Case-mix definition & Stratification factors
- Data source and datacollection (pro/retro)
- Sample size, precision
- Qualification of observer
- Practice benchmark, quality baseline
- Link to QI intervention programme

# Hospital pharmacist and data sources

- Billing data
- Patient chart
- Nursing files, administration records
- Electronic Patient dossier
  - Diagnosis and clinical parameters
  - Therapeutic protocol
  - Drug regimen:
    - Dosages and intervals
    - Therapy duration
    - Route of administration
  - Link with microbiological results
  - Link with other diagnostic tools (Rx,..)

Not always reflecting real use  
(e.g. split doses)

Disaggregated  
information, often  
incomplete

Easy access but not  
conceived for quality  
analysis