

Faculty of Medicine
**Microbiology Diagnostics &
Infection Control Unit (MDICU)**
Medical Microbiology & Immunology Dep.



كلية الطب
وحدة التشخيص الميكروبي
ومكافحة العدوى
بمستشفيات جامعة المنصورة
قسم الميكروبيولوجيا والمناعة الطبية

Antibiotic therapy policy

سياسة العلاج بالمضادات الحيوية في مستشفيات جامعة المنصورة و المراكز
الطبية

مدير وحدة التشخيص الميكروبي ومكافحة العدوى

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Antibiotics therapy policy (General Rules)

Policy

It is the policy of the hospital to place limits and control on the antimicrobial drugs that may be generally prescribed in order to reduce the development of resistant organisms, to encourage rational use of new antibiotics and also to reduce the cost.

Procedure

All antimicrobials approved for use are classified into three groups

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First line: The group for the general use of all physicians as first line antibiotics drug therapy.

Second line: This group should be prescribed only by consultants when so indicated by culture and sensitivity test.

Restricted: The group is restricted for the treatment of specified conditions only.

Duration of therapy

The factors that influence the required duration of therapy include:

- The choice of the drug
- The relapse rates with different durations of therapy
- The degree of antimicrobial sensitivity of the pathogen
- The route of administration.
- The site of infection
- The host defensive mechanisms.

One week is usually recommended for a course of antibiotics for treating many bacterial infections.

However, some infections may be effectively treated with less than 3 days treatment while other infections require longer than a week therapy.

Unnecessarily long treatment increases the chances of side effects or toxicity as well as causing increased costs & increasing the risks of acquiring hospital infections caused by antibiotic resistant organisms.

Combinations of antibiotic therapy

An infection should – if possible be treated with a single antimicrobial agent. Combination therapy may be necessary in:

- Severe infections
- Mixed or unknown infections
- To reduce the development of resistance
- When seems necessary by the treating physician.

The activity of an antibiotic combination is largely dependent on the bactericidal or bacteriostatic properties of the individual components.

The effects of antibiotic combinations may be as follow:

- A bactericidal drug combined with another bactericidal drug may produce a synergistic combination.
- A bacteriostatic drug combined with a bactericidal drug is likely to be antagonistic
- A bacteriostatic drug combined with another bacteriostatic drug is usually merely additive

Antibiotic Policy for *Oncology Center* (*October 2007 - April 2008*)

1- Antibiotic policy for *Methicillin Sensitive Staphylococci*: (30.4%)

Suggested policy for treatment of staphylococcal infection

First line (general use)	Second (Reserved)	Restricted
- Ampicillin -Amoxycillin -Cephalexin	- Amoxycillin/Clavulnate - Ampicillin/Sulbactam	- Merpenem - Imipenem

2- Antibiotic policy for *Methicillin Resistant Staphylococci* : (4.4%)

Suggested policy for treatment of Methicillin Resistant Staphylococci

First line (general use)	Second (Reserved)	Restricted
	-Ciprofloxacin -Levofloxacin -Ofloxacin	- Vancomycin - Imipenem - Meropenem

3- Antibiotic policy for *Gram Negative Bacilli*: (30%)

Suggested policy for treatment of Gram Negative Bacilli

First line (general use)	Second (Reserved)	Restricted
	- Gentamicin -Amoxycillin/Clavulnate - Ceftriaxone -Ceftazidime - Ciprofloxacin	- Merpenem - Imipenem - Piperacillin/Tazobactam

4- Antibiotic policy for *Pseudomonas aeruginosa* :(10.7%)

Suggested policy for treatment of *Pseudomonas aeruginosa*

First line (general use)	Second (Reserved)	Restricted
-Piperacillin	- Gentamicin -Ceftriaxone	- Merpenem - Imipenem - Piperacillin/Tazobactam
