

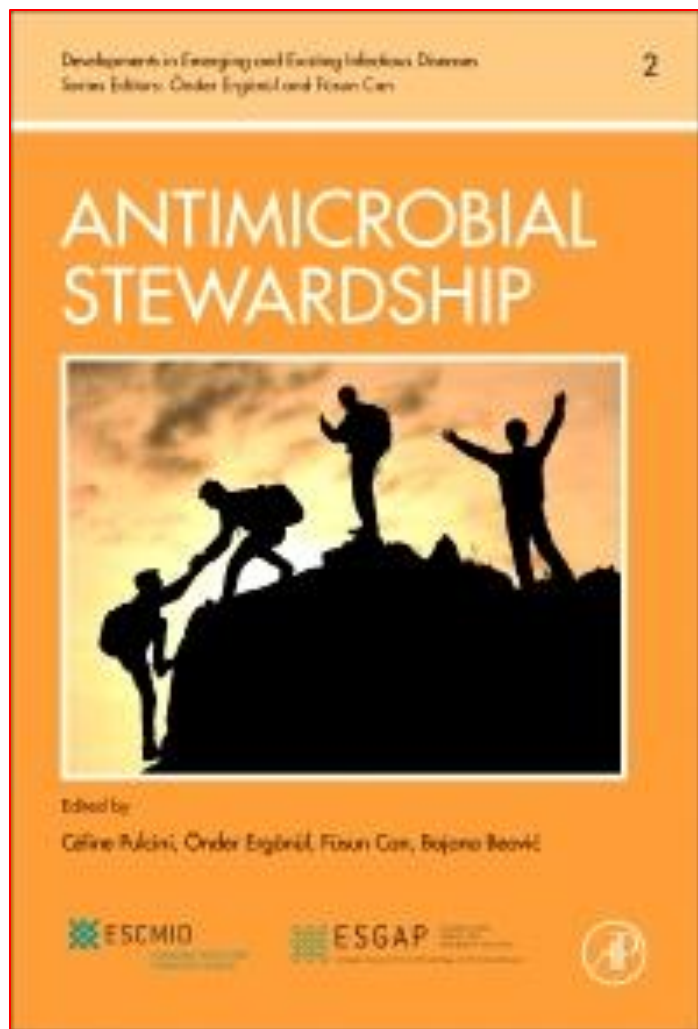


Uluslararası Rehberler ve KLİMİK Rehberi

Dr. Özlem Kurt Azap

Başkent Üniversitesi Tıp Fakültesi

Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji AD



Plan

- Giriş
- Mevcut rehberlere genel bakış
- KLİMİK Rehberi için hazırlık:
 - Kapsam
 - Diğer rehberlerle benzerlikler, farklılıklar...
 - Özgün taraflar: Var mı?
 - Çalışma takvimi
- Öneriler

ANTİMİKROBİYAL YÖNETİM SİMPOZYUMU

ANTIMICROBIAL STEWARDSHIP

6-8 EKİM 2016, İSTANBUL





ANTİMİKROBİYAL YÖNETİM REHBERİ

Hazırlayan: KLİMİK DERNEĞİ

Yayımlanma tarihi: Ocak 2018

Belki de daha erken!



The Nobel Prize Physiology/Medicine 1945



Sir Alexander Fleming
1881 - 1955



Sir Howard Walter Florey
1898 - 1968



Ernst Boris Chain
1906 - 1979

Alexander Fleming discovered the antimicrobial properties of penicillin in 1928. Twelve years later, Howard Florey and Ernst Chain developed the processes to produce penicillin in sufficient quantity for it to become widely available

ALEXANDER FLEMING

Penicillin

Nobel Lecture, December 11, 1945

The time may come when penicillin can be bought by anyone in the shops. Then there is the danger that the ignorant man may easily underdose himself and by exposing his microbes to non-lethal quantities of the drug make them resistant. Here is a hypothetical illustration. Mr. X. has a sore throat. He buys some penicillin and gives himself, not enough to kill the streptococci but enough to educate them to resist penicillin. He then infects his wife. Mrs. X gets pneumonia and is treated with penicillin. As the streptococci are now resistant to penicillin the treatment fails. Mrs. X dies. Who is primarily responsible for Mrs. X's death? Why Mr. X whose negligent use of penicillin changed the nature of the microbe. *Moral:* If you use penicillin, use enough.

Improve Antibiotic Use to Combat Antibiotic Resistance

70%

**Necessary
Prescriptions**

(Still need
to improve
drug selection,
dose and duration)

At least
30%
**Unnecessary
Prescriptions**

In U.S. Doctor's Offices and Emergency Departments

CDC is working to reduce unnecessary antibiotic use

White House National Action Plan to Combat Antibiotic Resistance (NARBP)

Goal: By 2020, reduce inappropriate outpatient antibiotic use by 50%

Find out when antibiotics are necessary.
Visit: <http://www.cdc.gov/getsmart>

Centers for Disease Control and Prevention (2012).
Jerning-Dutra, K et al. Prevalence of inappropriate antibiotic
prescriptions among US ambulatory care visits, 2010–2011.
Journal of the American Medical Association. May 2016.
DOI:10.1001/jama.2016.1113



**Centers for Disease
Control and Prevention**
National Center for Emerging and
Zoonotic Infectious Diseases

Yıl: 2050

Direnç nedeniyle her üç saniyede bir kişi kaybedilecek!

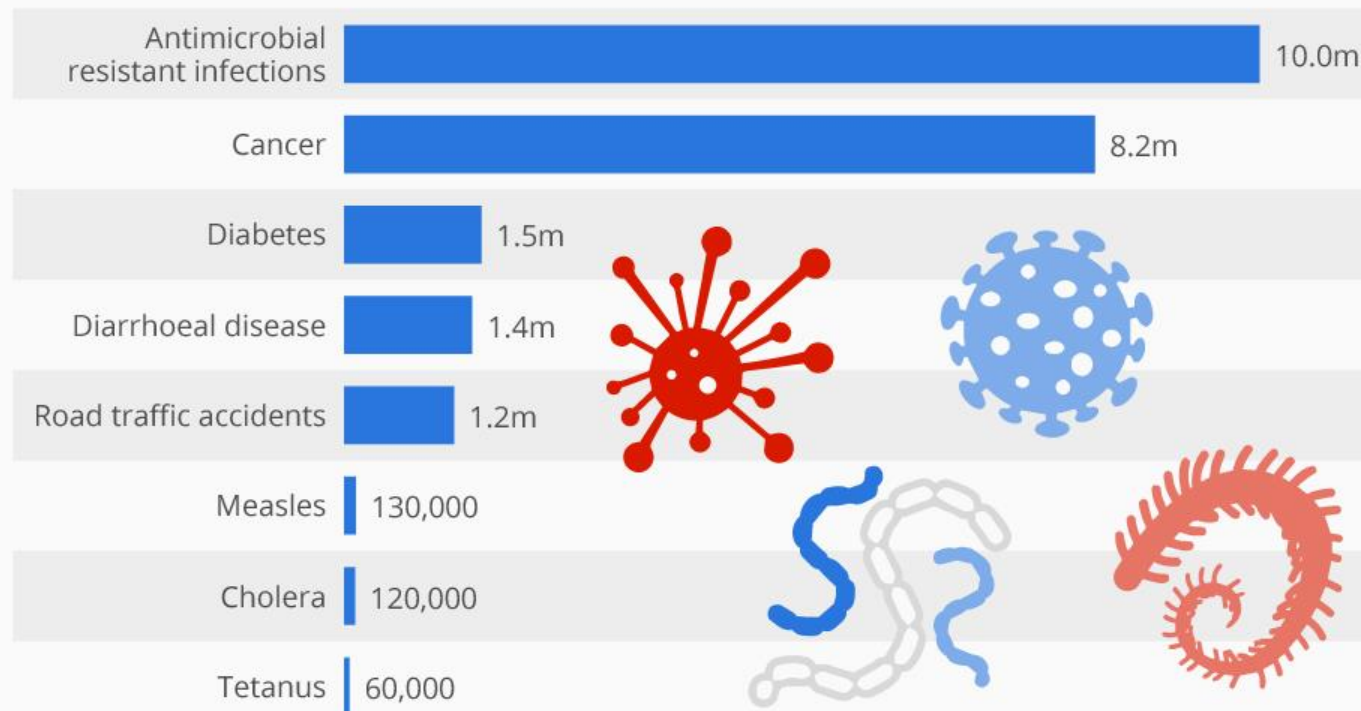


Yıl: 2050

Direnç nedeniyle yıllık ölen kişi sayısı: 10 milyon olacak!

Deaths From Drug-Resistant Infections Set To Skyrocket

Deaths from antimicrobial resistant infections and other causes in 2050



@StatistaCharts

Source: Review on Antimicrobial Resistance

statista

Gerçekten mi?

ESSAY

Will 10 Million People Die a Year due to Antimicrobial Resistance by 2050?

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Summary Points

- A recent high profile report estimates that, by 2050, 10 million people will die every year due to antimicrobial resistance (AMR) unless a global response to the problem of AMR is mounted.
- There is undoubtedly a large clinical and public health burden associated with AMR, but it is challenging to quantify the associated excess morbidity and mortality.
- When estimates of the burden of AMR are provided, they should be accompanied by clear acknowledgment of the associated uncertainties regarding the incidence of infections, the prevalence of resistance, and the attributable mortality.
- Predictions always require assumptions, but modeling future scenarios using unreliable contemporary estimates is of questionable utility.
- Current global estimates of the burden of AMR are not very informative; we need detailed, reliable data to be able to improve AMR control measures, preferably based on comprehensive, population-based surveillance data from low-, middle-, and high-income countries.



HIGH-LEVEL MEETING ON ANTIMICROBIAL RESISTANCE



21 SEPTEMBER 2016, UN HEADQUARTERS, NEW YORK

10:00-10:30	Opening segment (Trusteeship Council Chamber) <i>Statements by:</i> • <i>H.E. Mr. Peter Thomson, President of the 71st session of the United Nations General Assembly,</i> • <i>H.E. Mr. Ban Ki-moon, Secretary-General of the United Nations</i> • <i>H.E. Dr. Margaret Chan, Director-General of the World Health Organization</i> • <i>H.E. Mr. José Graziano da Silva, Director-General of the Food and Agriculture Organization of the United Nations</i> • <i>H.E. Dr. Monique Eloit, Director General of the World Organization for Animal Health</i>	
10:30-11:45	Plenary segment (Trusteeship Council Chamber)	Panel 1: Relevance of addressing antimicrobial resistance for the achievement of the Sustainable Development Goals, in particular the health-related Goals (ECOSOC Council Chamber) <u><i>Panellists:</i></u> <i>Member States:</i> 1. <i>H.E. Mr. Vytenis Andriukaitis, EU Commissioner for Health and Food Safety</i> 2. <i>H.E. Ms. Veronika Skvortsova, Minister of Healthcare, Russian Federation</i> 3. <i>H.E. Dr. Cleopa Mailu, Cabinet Secretary for Health of Kenya</i> <i>Stakeholders:</i> 4. <i>Dr. Joanne Liu, International President, Médecins Sans Frontières</i> 5. <i>Sir Andrew Witty, CEO, GSK</i> 6. <i>Mr. Martin Khor, Executive Director, South Centre</i>

DSÖ- Öncelikli patojen listesi

WHO PRIORITY PATHOGENS LIST FOR R&D OF NEW ANTIBIOTICS

Priority 1: CRITICAL[#]

Acinetobacter baumannii, carbapenem-resistant

Pseudomonas aeruginosa, carbapenem-resistant

*Enterobacteriaceae**, carbapenem-resistant, 3rd generation cephalosporin-resistant

Priority 2: HIGH

Enterococcus faecium, vancomycin-resistant

Staphylococcus aureus, methicillin-resistant, vancomycin intermediate and resistant

Helicobacter pylori, clarithromycin-resistant

Campylobacter, fluoroquinolone-resistant

Salmonella spp., fluoroquinolone-resistant

Neisseria gonorrhoeae, 3rd generation cephalosporin-resistant, fluoroquinolone-resistant

Priority 3: MEDIUM

Streptococcus pneumoniae, penicillin-non-susceptible

Haemophilus influenzae, ampicillin-resistant

Shigella spp., fluoroquinolone-resistant

CAESAR'a gönderilen Türkiye verisi - Ulusal Antibiyotik Direnç Oranları (2013-2015)

	<i>E. coli</i>			<i>K. pneumoniae</i>		
Antibiyotik sınıfı	2013	2014	2015	2013	2014	2015
Aminopenisilinler (R)	%67	%76	%78	UD	UD	UD
3. kuşak sefalosporinler (R)	%44	%29	%28	%56	%45	%44
3. kuşak sefalosporinler (I+R)	%45	%47	%48	%59	%42	%48
Aminoglikozitler (R)	%22	%48	%49	%30	%48	%52
Florokinolonlar (R)	%41	%36	%51	%34	%52	%68
Florokinolonlar (I+R)	%42	%39	%53	%39	%61	%70
Karbapenemler (R)	%4	%1	%2	%11	%28	%30
Karbapenemler (I+R)	%5	%2	%5	%15	%31	%35
Çok ilaca direnç (R)	-	%14	%16	-	%20	%32

CAESAR'a gönderilen Türkiye verisi - Ulusal Antibiyotik Direnç Oranları (2013-2015)

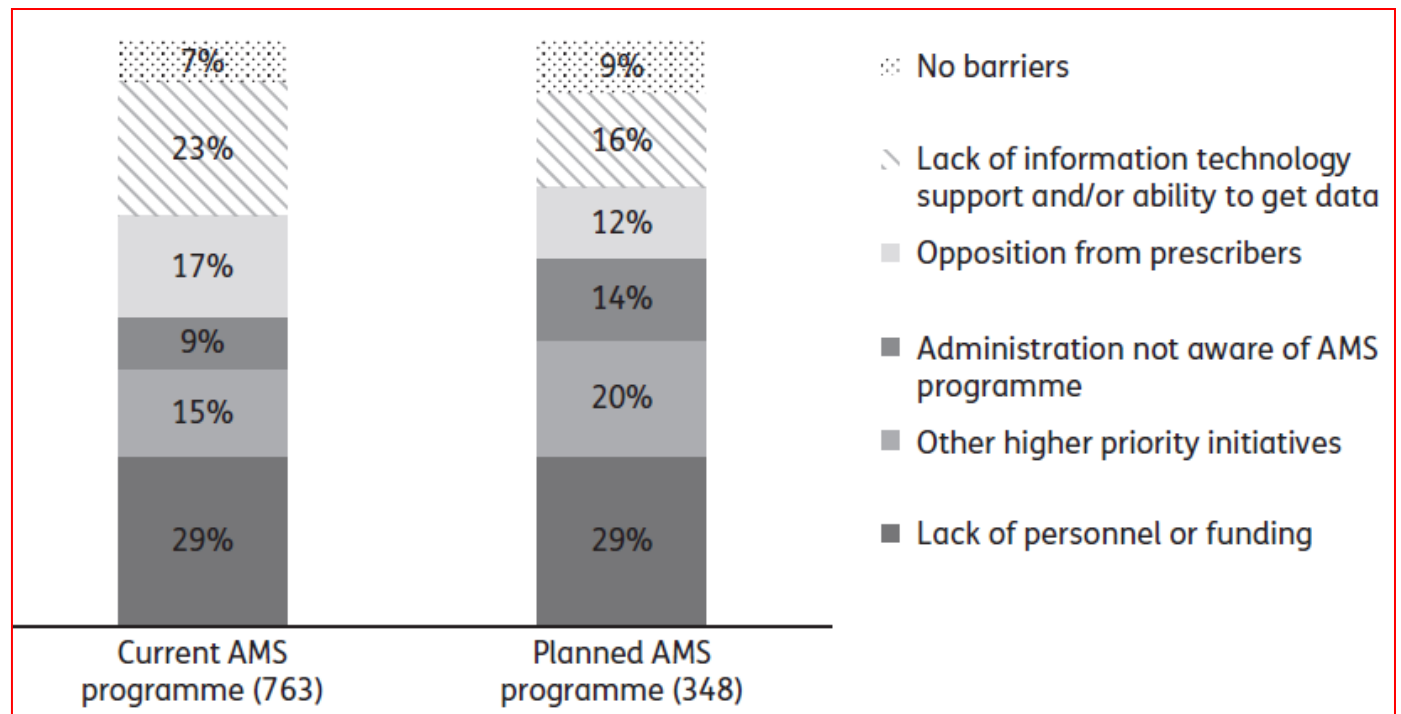
	<i>P. aeruginosa</i>			<i>Acinetobacter</i> spp.		
Antibiyotik sınıfı	2013	2014	2015	2013	2014	2015
Aminoglikozitler (R)	%19	%18	%17	-	%74	%80
Florokinolonlar (R)	%22	%19	%24	-	%89	%89
Piperasilin-tazobaktam (R)	%27	%21	%30	UD	UD	UD
Seftazidim (R)	%26	%19	%24	UD	UD	UD
Karbapenemler (R)	%33	%24	%32	-	%89	%89
Karbapenemler (I+R)	%36	%30	%37	-	%90	%90
Çok ilaca direnç (R)	-	%17	%21	-	%66	%77

Antimikrobiyal Yönetim Rehberi Yayınlayan Ülkeler

- ABD
- Almanya
- Hollanda
- Fransa
- İrlanda
- İngiltere
- İspanya
- ...

ESGAP Anketi- 2012

- 67 ülke, 660 hastane
%58'inde AMY programı var
%22'si planlıyor



“AMY Programı işe yarıyor mu?”

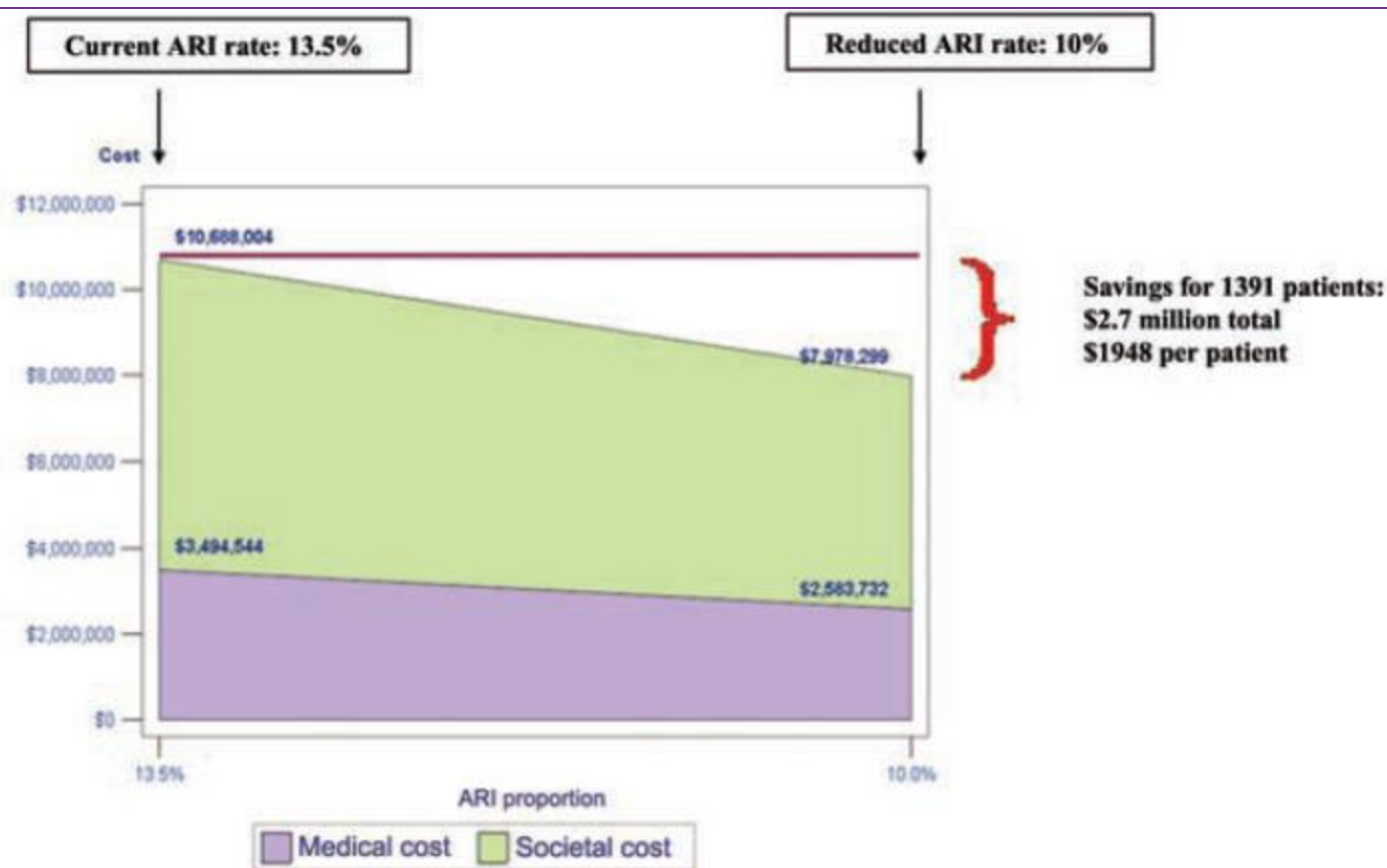


Figure 2. Projected cost savings if antimicrobial-resistant infection (ARI) rates were reduced from 13.5% to 10%.

ABD (2007 yılı, 2016 yılı) ve Almanya (2016 yılı) Rehberleri

Core members of a multidisciplinary antimicrobial stewardship team include an infectious diseases physician and a clinical pharmacist with infectious diseases training (A-II) who should be compensated for their time (A-III), with the inclusion of a clinical microbiologist, an information system specialist, an infection control professional, and hospital epidemiologist being optimal (A-III). Because antimicrobial stewardship, an important component of patient safety, is considered to be a medical staff function, the program is usually directed by an infectious diseases physician or codirected by an infectious diseases physician and a clinical pharmacist with infectious diseases training (A-III).

Clinical Infectious Diseases 2007;44:159–77

Clinical Infectious Diseases™ 2016;62(10):e51–e77

The team should consist of at least one infectious diseases physician (or clinician with infectious diseases training) and an experienced clinical pharmacist/hospital pharmacist, as well as a specialist in microbiology, virology and infection epidemiology being responsible for laboratory diagnostic and microbiological consultation; furthermore, the physician

Infection (2016) 44:395–439

AMY Ekibi (Takımı)

- Enfeksiyon hastalıkları uzmanı (EHU)
- Klinik mikrobiyoloji uzmanı
- Enfeksiyon kontrol hekimi/hemşiresi
- Hastane epidemiyoloğu
- Klinik eczacı
- Bilgi işlem uzmanı

Hangi yöntem?

Kısıtlama mı?

Prospektif değerlendirme ve geri bildirim mi (**ikna mı**)?

I. Does the Use of Preauthorization and/or Prospective Audit and Feedback Interventions by ASPs Improve Antibiotic Utilization and Patient Outcomes?

Recommendation

1. We recommend preauthorization and/or prospective audit and feedback over no such interventions (*strong recommendation, moderate-quality evidence*).

➤ İkisi de hiçbir şey yapmamaktan iyidir

Hızlı tanı:

Prokalsitonin, viral antijen testleri, mantarlar için biyobelirteçler, moleküler yöntemler

XVI. Should ASPs Advocate for Use of Rapid Viral Testing for Respiratory Pathogens to Reduce the Use of Inappropriate Antibiotics?

Recommendation

17. We suggest the use of rapid viral testing for respiratory pathogens to reduce the use of inappropriate antibiotics

(*weak recommendation*)

Comment: Although we suggest the use of rapid viral testing to reduce inappropriate antibiotic use, the evidence is not consistent. Few studies have evaluated the impact of active ASP interventions on antibiotic use.

XVIII. In Adults in Intensive Care Units (ICUs) With Suspected Infection, Should ASPs Advocate Procalcitonin (PCT) Testing as an Intervention to Decrease Antibiotic Use?

Recommendation

we suggest the use of procalcitonin testing as an intervention to decrease antibiotic use (moderate-quality evidence).

XVII. Should ASPs Advocate for Use of Rapid Fungal Testing on Blood Specimens to Optimize Antifungal Use?

Recommendation

18. We suggest rapid diagnostic testing in addition to conventional culture and routine reporting on blood specimens if combined with active ASP support and interpretation (*weak recommendation, moderate-quality evidence*).

ASPs Advocate for Interventions

Recommendation

20. In patients with hematologic malignancy at risk of contracting invasive fungal disease (IFD), we suggest incorporating nonculture-based fungal markers in ASP interventions to optimize antifungal use (*weak recommendation, low-quality evidence*).

- Solunum yolu patojenleri için hızlı testler
- YBÜ'de prokalsitonin
- Kan örneklerinde hızlı tanı testleri
- Fungal belirteçler

Klinik tablolara özgü algoritmalar

IV. Should ASPs Implement Interventions to Improve Antibiotic Use and Clinical Outcomes That Target Patients With Specific Infectious Diseases Syndromes?

Recommendation

4. We suggest ASPs implement interventions to improve antibiotic use and clinical outcomes that target patients with specific infectious diseases syndromes (*weak recommendation, low-quality evidence*).

Antibiyotik gerekmeyen durumlara ilişkin öneriler de belirlenmelidir

Örneğin

- Asemptomatik bakteriüri
- Sürveyans amacıyla alınmış sürüntü örneklerindeki üremeler

Örneğin

- Toplum kökenli pnömoni
- Hastane kökenli pnömoni
- Selülit
- Tonsillofarenjit
- Üriner sistem enfeksiyonu

gibi hastalıklara özel **tanı/tedavi** algoritmaları

Tedavi optimizasyonu

3.1 Special programmes for treatment optimisation

De-escalation includes conversion from an empirical combination therapy to targeted monotherapy based on knowledge of the microorganism isolated, susceptibility and infectious disease.

De-escalation should be initiated early on (after 48–72 h), which also includes discontinuation of initial therapy if diagnosis is not secured. Observational studies show that this strategy is not adopted in 20–60 % of cases.

De-escalation programmes should point out that depending on the exact diagnosis in some cases instead of de-escalation, escalation may in fact be necessary.

Prolonged infusion of beta-lactams (taking into account physico-chemical stability) is reasonable and recommended particularly in critically ill patients.

TDM can avoid under-/over-dosing and minimise organ toxicity.

Programmes for doses optimisation are cost-effective.

- Her zaman de-eskalasyon olmayabilir; eskalasyon da bir optimizasyondur
- Tedavi 48-72 saatte gözden geçirilmeli
- Uzamış infüzyon..vb uygulamalar değerlendirilmeli
- Serum düzeyi takibi önemli

IV antibiyotikler için PK monitorizasyon

IX. In Hospitalized Patients Requiring Intravenous (IV) Antibiotics, Does a Dedicated Pharmacokinetic (PK) Monitoring and Adjustment Program Lead to Improved Clinical Outcomes and Reduced Costs?

Recommendations

9. We recommend that hospitals implement PK monitoring and adjustment programs for aminoglycosides (*strong recommendation, moderate-quality evidence*).
10. We suggest that hospitals implement PK monitoring and adjustment programs for vancomycin (*weak recommendation, low-quality evidence*).

Aminoglikozitler ve vankomisin için düzey takibi önemli

Oral tedavi

XI. Should ASPs Implement Interventions to Increase Use of Oral Antibiotics as a Strategy to Improve Outcomes or Decrease Costs?

Recommendation

12. We recommend ASPs implement programs to increase both appropriate use of oral antibiotics for initial therapy and the timely transition of patients from IV to oral antibiotics (*strong recommendation, moderate-quality evidence*).

Oral tedavi

- Başlangıç tedavisi olarak
- Ardışık tedavide PE'den sonra

Avantajları

- İlaç maliyeti daha düşük
- Yatış süresi daha kısa

Tedavi süreleri

XIII. Should ASPs Implement Interventions to Reduce Antibiotic Therapy to the Shortest Effective Duration?

Recommendation

14. We recommend that ASPs implement guidelines and strategies to reduce antibiotic therapy to the shortest effective duration (*strong recommendation, moderate-quality evidence*).

Tedavi süreleri etkin olan en kısa süreye kısaltılmalıdır

Table 2. Meta-analyses and Examples of Randomized Clinical Studies Comparing Shorter Versus Longer Duration of Antibiotics

Reference	Clinical Condition/Population	Treatment Duration, d	Clinical Outcome ^a
Meta-analyses			
Dimopoulos et al, 2008 [123]	Adults and children with CAP	3–7 vs 5–10	Clinical success, relapse, mortality, adverse events
Pugh et al, 2011 [124]	Adults with VAP	7–8 vs 10–15	Antibiotic-free days ^b , recurrence ^b
Dimopoulos et al, 2013 [125]	Adults with VAP	7–8 vs 10–15	Relapse, mortality, antibiotic-free days ^c
Randomized clinical trials			
Chastre et al, 2003 [127]	Adults with VAP	8 vs 15	Mortality, recurrent infections ^d
El Moussaoui et al, 2006 [128]	Adults with CAP	3 vs 5	Clinical and radiological success
Greenberg et al, 2014 [129]	Children with CAP	5 vs 10	Treatment failure ^e
Hepburn et al, 2004 [130]	Adults with cellulitis	5 vs 10	Clinical success
Sandberg et al, 2012 [131]	Adult females with acute pyelonephritis	7 vs 14	Clinical efficacy, adverse events
Talan et al, 2000 [132]	Women with acute uncomplicated pyelonephritis	7 vs 14	Bacteriologic and clinical cure ^f
Runyon et al, 1991 [133]	Adults with spontaneous bacterial peritonitis	5 vs 10	Mortality, bacteriologic cure, recurrence
Saini et al, 2011 [134]	Neonatal septicemia	2–4 vs 7 (with sterile culture)	Treatment failure
Sawyer et al, 2015 [135]	Adults with intra-abdominal infection	4 vs ≤10	Composite of surgical site infection, recurrent intra-abdominal infection, or death
Bernard et al, 2015 [136]	Adults with vertebral osteomyelitis	42 vs 84	Cure at 1 y by independent committee and secondary outcomes

Tabakalı (Stratified) Antibiyogram

XIV. Should ASPs Work With the Microbiology Laboratory to Develop Stratified Antibigrams, Compared With Nonstratified Antibigrams?

Recommendation

15. We suggest development of stratified antibiograms over solely relying on nonstratified antibiograms to assist ASPs in developing guidelines for empiric therapy (*weak recommendation, low-quality evidence*).

Yaşa, hastalığa, birime, örnek türüne... göre antibiyogramlar geliştirilebilir

Antibiyotik rotasyonu

VIII. Should ASPs Implement Strategies That Promote Cycling or Mixing in Antibiotic Selection to Reduce Antibiotic Resistance?

Recommendation

8. We suggest against the use of antibiotic cycling as a stewardship strategy (*weak recommendation, low-quality evidence*).

Direnci azaltmak üzere antibiyotiklerin siklik kullanımı
ÖNERİLMEMEKTEDİR

Antibiyotik kullanım ölçütü olarak DDD mi? DOT mu?

XX. Which Overall Measures Best Reflect the Impact of ASPs and Their Interventions?

Recommendation

21. We suggest monitoring antibiotic use as measured by days of therapy (DOTs) in preference to defined daily dose (DDD) (*weak recommendation, low-quality evidence*).

DDD: Daily Defined Dose

- **DSÖ** tarafından öneriliyor
- Birim bazında yapılabildiği için DOT'tan daha kolay
- Yaygın kullanıldığı için karşılaştırma yapılabiliyor
- Çocuk dozları için uygun değil

DOT: Days of Therapy

- Doz düzenlemelerinden etkilenmediği için hem pediatrik hem erişkin hastalarda kullanılabilir
- **CDC**, DOT olarak rapor ediyor
- Verinin hasta bazında elde edilmesi gerekiyor; her yerde yapılamayabilir



Dutch Guideline for Antibiotic Stewardship:

What is the evidence for hospital
Antimicrobial Stewardship objectives?

and...how to implement it in daily practice?

Jeroen Schouten, MD PhD

October 2016
Istanbul

Hollanda Rehberi:
Nasıl bir yol izlendi?

Inclusion and exclusion criteria

14 systematic reviews

Inclusion

- Hospital or long-term care facilities
- Dutch, English, German, Spanish, French
- Adults (≥ 18 yr)

Exclusion

- Children (< 18 yr)
- Outpatients/GP setting
- Outbreak setting
- Resource-limited settings
- Prophylactic and peri-operative treatment
- Malaria, HIV, *Mycobacterium*, *H. pylori*

“Hedef kitle” belirlenmeli:

- Yatan hasta/ayaktan hasta
- Erişkinler/çocuklar
- Tedavi/profilaksi
- Bakteri/Mantar/Virüs enfeksiyonları

Search

Search	# of records after duplicates removed	# of full-text articles assessed	# of studies included in qualitative synthesis
Empirical therapy according to the guidelines	760	110	40
Take blood cultures	1921	9	0
Take cultures from site of infection	1352	14	0
De-escalation of therapy	2726	121	25
Adjustment of therapy to			5
Switch from intravenous to			18
Documented antibiotic plan	234	2	0
Therapeutic Drug Monitoring (TDM)	2250	64	17
Discontinuation of antibiotic therapy if infection is not confirmed	447	19	3
Presence of a local antibiotic guide	946	4	1
Local guide in agreement with the national guidelines	295	8	0
List of restricted antibiotics	1231	140	30
Bedside consultation	684	24	7
Assessment of patients' adherence	868	18	0
Total	16300	669	146

Literatür taraması yapılmalı

Table 1. Example detailed time effort

What	By whom	Frequency?	Time effort
Core tasks A-team (chapter 2) - Organisational aspects (meetings, drawing up annual plan, annual report, cooperation of parties involved) - Coordination of day to day monitoring	- A-team members	To be determined locally	0.5 FTE/500 beds
- Coordination of preconditions (chapter 3)	- A-team in collaboration with antibiotics committee	At least once per year	
- Coordination of audits and improvement projects	- Members of A-team/ quality official	To be determined locally	
IT support/data management	- IT specialist/data manager	To be determined locally	0.1 FTE/500 beds
Execution of day to day monitoring and advice with respect to prescription selection (chapter 4)	Example: - Nurse Practitioner/ nurse/ pharmacist's assistant,	Daily	Variable*

Çalışma takvimi/zaman çizelgesi oluşturulmalı

Measuring antibiotics use(chapters 5 and 6) - point prevalence survey	- Specialist trainees/ specialist infection control/ A-team members, etc.	Annually	Variable*
Performing improvement projects (chapter 7), for example: - Setting up monitoring of use of restricted antibiotics - IV-oral switch programme - Setting up systematic bedside assistance for <i>S. aureus</i> Bacteremia - Improving surgical prophylaxis	- To be elaborated locally	To be determined locally	Variable*

* Determine the amount of prescriptions

İçindekiler

➤ **AMY'nin arka planı**

- A Takımı'nın Görevleri

➤ **AMY Programının oluşturulması**

- A Takımı'nın belirlenmesi
- İletişim ve destek
- Eylem planı hazırlanması
- AMY programının genel yapısı
- Çalışma takvimi

➤ **AMY programı öncesinde gerekenler**

- Lokal antibiyotik formülleri
- “Kısıtlanacak” antibiyotiklerin belirlenmesi
- Bilgi işlem desteği

➤ **Standart izlem ve özel hasta grupları için öneriler**

- Hastanedeki hasta popülasyonunu belirleme

➤ **Nokta prevelans çalışmaları**

- Antibiyotik kullanımının izlenmesi
- Nokta prevelans çalışması için farklı yöntemler
- Kalite indikatörleri
- Sonuçların raporlanması

➤ **Ek izlemler**

- Antibiyotik kullanımının uygunluğu
- Antibiyotik kullanımının miktarı
- Direnç oranları

➤ **Gelişme sağlanması için tematik projeler**

- Cerrahi profilaksinin optimizasyonu
- *S.aureus* sepsisi tedavisi için öneriler
- Doz optimizasyonu
- “Bundle”

➤ **“Take home messages”**



Chapter 1.

Backgrounds Antimicrobial Stewardship

The tasks of an A-team

In Dutch hospitals - in a cross-sectional study at a random point in time - antibiotics are prescribed to about 30 to 40% of the patients. Exposure to antibiotics is one of the main sources for the development and spread

Coordination

Formulate how the A-team's tasks are coordinated with the Infection Committee, the antibiotics committee and the Hospital Hygiene and Infection Control department.

been steadily increasing over the past years (Netmap 2017). In the Netherlands as well with the risk that in the future, these agents, too, can be used less and less often.

Rehberin Son Sayfasındaki Öneriler

“YAPILMALI”lar listesi

- Hedefler açık bir şekilde belirlenmeli ve duyurulmalı
- İş tanımı açık olmalı
- İlaç formülleri açık ve anlaşılır olmalı
- Kritik ilçalar belirlenip günlük izlenmeli
- Küçük küçük başlamalı ve başarı elde edildiğinde paylaşılmalı

“YAPILMAMALI”lar listesi

- Çalışanların ve yöntemin desteği olmadan BAŞLAMAMALI
- Yeterli araç yoksa BAŞLAMAMALI
- Aynı anda çokook problemle UĞRAŞILMAMALI



ANTIMICROBIAL STEWARDSHIP AROUND THE GLOBE

VIENNA 2017

Dilip Nathwani

Ninewells Hospital and Medical School
Dundee, UK

THE TWO WORLDS?

Understanding the Worlds for a global Approach

High income Countries

- Respectable taxation systems
- Controllable corruption
- Appropriately funded healthcare (usually public)
- Decent sanitation
- Clean portable water
- Industrial waste controlled
- Antibiotic stewardship - variable
- Microbiology support - good

Low-Middle income Countries

- Broken taxation system
- Corruption is the norm
- Healthcare systems are invariably private (even public hospitals)
- Poor sanitation
- Contaminated portable water
- Industrial waste uncontrolled
- Antibiotic stewardship - poor
- Microbiology support - weak

?

T WALSH, BSAC 2017

Plan

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- KLİMİK Rehberi için hazırlık:
 - Kapsam
 - Diğer rehberlerle benzerlikler, farklılıklar...
 - Özgün taraflar: Var mı?
 - Çalışma takvimi
- Öneriler

Aklımda kalanlar

- AMY Ekibini oluşturmak: Yönetim desteği ile
- Durum tespiti yapmak: Nokta prevalans çalışmaları vb
- Laboratuvar desteği: Hızlı tanı testleri, yakın iletişim vb
- Bilgi işlem alt yapısının oluşturulması
- Hedeflerin belirlenmesi: Herşeye aynı anda el ATMAMALI!

Kapsam

Nasıl başlayalım?

- Erişkin hastalar
- Hastanede yatan hastalar / Ayaktan hastalar
- Bakteriyel / fungal / viral enfeksiyonlar
- Diğer uzmanlık dernekleri ile birlikte çalışma
 - Kısa vadede yapılacaklar
 - Uzun vadede yapılacaklar
 - Hangi dernekler?
-

Örneğın...



ÇİD-GRAM NEGATİF BAKTERİLER İÇİN ANTİMİKROBİYAL YÖNETİM REHBERİ

Hazırlayan: KLİMİK DERNEĞİ
Yayımlanma tarihi: Ocak 2018
Belki de daha erken!

AMY Ekibi

AMY Ekibi (A Takımı)

- Enfeksiyon hastalıkları uzmanı (EHU)
- Klinik mikrobiyoloji uzmanı
- Enfeksiyon kontrol hekimi/hemşiresi
- Hastane epidemiyoloğu
- Klinik eczacı
- Bilgi işlem uzmanı

Türkiye’de günlük pratikte

- Klinik eczacı sayısı çok az
- Enfeksiyon kontrolünden **de** EHU sorumlu
- Bilgi işlem uzmanı?

Hangi yöntem?

- EHU onayı etkili mi? Yeterli mi?
- Eğitim ile “ikna” olanaklı mı?

Hızlı Tanı

- Solunum yolu patojenleri için hızlı testler
- YBÜ’de prokalsitonin
- Kan örneklerinde hızlı tanı testleri
- Fungal belirteçler

Klinik tablolara özgü algoritmalar

- KLİMİK rehberleri....

AMY ekibinde EHU neler yapabilir?- 1

Genele ilişkin (Eğitim, koordinasyon)

- Klinik mikrobiyoloji uzmanı başta olmak üzere diğer bölümlerin uzmanları ile birlikte çalışılmasının sağlanması
- Antimikrobiyal direnç konusunda hastane yönetiminin ve hastane çalışanlarının bilgilendirilmesi
- Enfeksiyon kontrol önlemlerine ilişkin -eğitim ve geri bildirim başta olmak üzere- çalışmaların yürütülmesi
- Klinik tablolara özgü algoritmaların hazırlanması

AMY ekibinde EHU neler yapabilir?- 2

Tedaviye ilişkin

- Hastanın, almakta olduğu tedavinin 48-72. saatinde gözden geçirilmesi; gerektiğinde (hastanın ateşi, antibiyogram sonuçları..vb) tedavinin genişletilmesi veya daraltılması
- ÇİD bakteri enfeksiyonlarının tedavisinde antibiyotiklerin farklı (uzamış ya da sürekli infüzyon..vb) şekillerde uygulanması
- İlaç etkileşimlerinin izlenmesi
- Hasta takibi sırasında gerekli durumlarda ilaç düzeylerinin izlenmesi (vankomisin, aminoglikozit)
- Hastanın parenteral tedavi sonrası oral tedaviye geçiş yönünden değerlendirilmesi
- **Tedavi sürelerinin olanaklı olduğu ölçüde kısaltılması**

Enfeksiyon hastalıkları uzmanının etkisi

REVIEW

10.1111/1469-0691.12751

The impact of infectious disease specialists on antibiotic prescribing in hospitals

C. Pulcini^{1,2}, E. Botelho-Nevers^{3,4}, O. J. Dyar⁵ and S. Harbarth⁶

1) Service de Maladies Infectieuses, CHU de Nancy, 2) Université de Lorraine, EA 4360 APEMAC, Nancy, France, 3) Service de Maladies Infectieuses, CHU de Saint-Etienne, 4) PRES Lyon GIMAP EA 3064, Université de Saint-Etienne, Saint-Etienne, France, 5) Medical Education Centre, North Devon District Hospital, Barnstaple, UK and 6) Infection Control Programme, Geneva University Hospitals and Faculty of Medicine, Geneva, Switzerland

EHU, antibiyotiklerin uygun kullanımına katkı sağlamakta ancak etkili olup olmamaları insani faktörlere ve organizasyonel faktörlere bağlı olarak değişkenlik göstermektedir

associated with a significant improvement in the appropriateness of antibiotic prescribing as compared with prescriptions without any IDS input, and with decreased antibiotic consumption. Variability in the antibiotic prescribing practices of IDSs, informal (curbside) consultations and the involvement of junior IDSs are among the factors that could have an impact on the efficacy of IDS recommendations and on compliance rates, and deserve further investigation. We also discuss possible drawbacks of IDSs in acute-care hospitals that are rarely reported in the published literature. Overall, IDSs are valuable to antimicrobial stewardship programmes in hospitals, but their impact depends on many human and organizational factors.

Keywords: antibiotic stewardship, antimicrobial, appropriateness, curbside consultation, infectious disease physician, interventional studies, quality, review

Article published online: 04 July 2014

Clin Microbiol Infect 2014; 20: 963–972

Türkiye'de...

- ÇİD gram negatif bakterilere bağlı enfeksiyonlar çooooook daha büyük bir sorun!
- Klinik eczacı yok!
- EHU enfeksiyon kontrolü ile de ilgileniyor! (Avantaj olabilir mi??)
- FTE (Full Time Equivalent) kavramı yerleşmemiş veya yok!
- İlaç formülleri yok!
- Bilgi işlem sistemleri yeterli değil!
- *C. difficile* sorunu büyük değil!

Takvim...

Antimicrobial Stewardship: Principles and Practice

Istanbul, Turkey

5 October 2017 - 7 October 2017

ESCMID Postgraduate Education Course

Course Description & Objectives

Course aims are: • reflect the situation and trends in antimicrobial resistance and consumption in Europe and worldwide • reflect the antibiotic stewardship initiatives being in place worldwide • reflect the scientific background of antibiotic stewardship interventions • learn the basic principles of antimicrobial resistance and consumption surveillance • reflect the quality management aspects of antimicrobial stewardship • learn the practical aspects of antimicrobial stewardship interventions • learn the principles of implementation of an antibiotic stewardship programme in various settings • learn the aspects of antibiotic stewardship in various settings: hospital (wards, surgery, ICU, hematology), primary care, general public, long-term care facilities • reflect the sociocultural aspects of antimicrobial stewardship • reflect behavioral science in antimicrobial stewardship • learn about other barriers to antimicrobial stewardship and how to address them • learn about the "change-the-behaviour" aspects of the antimicrobial stewardship interventions • learn about new technologies in AS • learn about rapid diagnostic possibilities and their impact on AS • learn how to integrate AS education in student, resident and postgraduate education at an institutional level • inform on evolving IT tools and devices for AS intervention • learn from national strategies: their successes and their failures

Infection prevention and control

SAVE LIVES: Clean Your Hands 5 May 2017

'Fight antibiotic resistance - it's in your hands'

WHO urges you to focus on the fight against antibiotic resistance in the context of hand hygiene

Öneriler...



