HASTANE ENFEKSİYONLARINDA SIFIR ENFEKSİYON MÜMKÜN DEĞİL ….

Dr. Şua SÜMER

Selçuk Üniversitesi Tıp Fakültesi
Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji AD

Tarihçe

1940 — Hekim ve hemşirelerin bireysel çabaları

1970 — Enfeksiyon kontrol hemşiresi kavramı

- Sürveyans ve enfeksiyon kontrolu için 250 yatağa 1, tam gün çalışan enfeksiyon kontrol hemşiresi
- Bu amaçla hemşirelere yönelik CDC tarafından kurslar düzenlenmiştir.
- Ulusal Nozokomiyal İnfeksiyon Sürveyans Sistemi (NNIS)
- ABD'de Nozokomiyal İnfeksiyon Kontrolünün Etkinliğini Ölçme Çalışması(SENIC)

Enfeksiyon hızlarında ~ %30 azalma

Ülkemizde…

2005

"Yataklı Tedavi Kurumları Enfeksiyon Kontrol Yönetmeliği"
(11 Ağustos 2005, 25903 sayılı Resmi Gazete)

- Enfeksiyon kontrol komitesi oluşumu,
- Çalışma şekli,
- Görev, yetki ve sorumlulukları ilişkin usûl ve esasları düzenlemek

Sıfır Enfeksiyon Hedefini Zorlayan Yaklaşımlar…..

- ABD'de;
  - -Hastane enfeksiyonlarının önlenebilir olarak değerlendirilmesi
  - -Hukuksal açıdan hastane enfeksiyonlarında maliyeti geri ödememe kararı alması

- Fransa'da;
  - -Hastane enfeksiyonlarının baştan direk hata olarak değerlendirilmesi
  - -Hukuksal açıdan hastane enfeksiyonu maliyetlerinin hastaneler tarafından ödenmesi

Hastane Enfeksiyonlarında…

- Hukuksal yaptırımların ciddiyeti
- Sonuçlardan hastane ve ıarının da etkilenmesi
- Hastanenin pre emi
- Hastan aybı

SIFIR ENFEKSİYON ARTIK GERÇEK BİR HEDEF OLMALI !

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 DECEMBER 28, 2006 VOL. 355 NO. 26

An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU

Peter Pronovost, M.D., Ph.D., Dale Needham, M.D., Ph.D., Sean Berenholtz, M.D., David Sinopoli, M.P.H., M.B.A., Haitao Chu, M.D., Ph.D., Sara Cosgrove, M.D., Bryan Sexton, Ph.D., Robert Hyzy, M.D., Robert Welsh, M.D., Gary Roth, M.D., Joseph Bander, M.D., John Kepros, M.D., and Christine Goeschel, R.N., M.P.A.

Table 3. Rates of Catheter-Related Bloodstream Infection from Baseline (before Implementation of the Study Intervention) to 18 Months of Follow-up.*

Study Period	No. of ICUs	No. of Bloodstream Infections per 1000 Catheter-Days				
		Overall	Teaching Hospital	Nonteaching Hospital	<200 Beds	≥200 Beds
		median (interquartile range)				
Baseline	55	2.7 (0.6–4.8)	2.7 (1.3–4.7)	2.6 (0–4.9)	2.1 (0–3.0)	2.7 (1.3–4.8)
During implementation	96	1.6 (0–4.4)†	1.7 (0–4.5)	0 (0–3.5)	0 (0–5.8)	1.7 (0–4.3)†
After implementation						
0–3 mo	96	0 (0–3.0)‡	1.3 (0–3.1)†	0 (0–1.6)†	0 (0–2.7)	1.1 (0–3.1)‡
4–6 mo	96	0 (0–2.7)‡	1.1 (0–3.6)†	0 (0–0)‡	0 (0–0)†	0 (0–3.2)‡
7–9 mo	95	0 (0–2.1)‡	0.8 (0–2.4)‡	0 (0–0)‡	0 (0–0)†	0 (0–2.2)‡
10–12 mo	90	0 (0–1.9)‡	0 (0–2.3)‡	0 (0–1.5)‡	0 (0–0)†	0.2 (0–2.3)‡
13–15 mo	85	0 (0–1.6)‡	0 (0–2.2)‡	0 (0–0)‡	0 (0–0)†	0 (0–2.0)‡
16–18 mo	70	0 (0–2.4)‡	0 (0–2.7)‡	0 (0–1.2)†	0 (0–0)†	0 (0–2.6)‡

Editorials

"Near zero" catheter-related bloodstream infections: Turning dreams into reality*

Chasing Zero

The Drive to Eliminate Surgical Site Infections

Kristine M. Thompson, MD, W. Andrew Oldenburg, MD,† Claude Deschamps, MD,‡ William C. Rupp, MD,§ and C. Daniel Smith, MD†*

CURRENT OPINION

Is it possible to achieve a target of zero central line associated bloodstream infections?

Leon J. Worth[a] and Mary-Louise McLaws[b,c]

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY JANUARY 2009, VOL. 30, NO. 1

COMMENTARY

Zero: What Is It, and How Do We Get There?

Published in final edited form as:
Crit Care Med. 2012 February ; 40(2): 657–658. d

COM **Zero Risk for CLAB**

Naomi P. O'Gra
Critical Car
Center

Nos

Ventilator-Associated Pneumonia: Is Zero Possible?

and Women's Hospital, and Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care
alth, Building 10 Room 2C142, 10
301.496.9320, Fax: 301.402.1213

Possible or

ot Be

The "Zero Risk" Concept for Hospital-Acquired Infections: A Risky Business!

Jean Carlet,[1] Jacques Fabry,[2] René Amalberti,[1] and Laurent Degos[1]

[1]Haute Autorité de Santé, Saint-Denis La Plaine, and [2]Université Claude Bernard, Lyon, France

BU BİR GERÇEKLİK Mİ? ⟷ YOKSA BİR HAYAL Mİ?

- Sıfır gibi iddalı bir yaklaşım, ulaşılmak istenilen hedefe konulabilir.
- Fakat teorik ve pratik olarak bu mümkün değil !!!

Farrington M.J Hospital Infect 2007;65:128-32

- Hastane enfeksiyonlarının 2 temel bileşeni var;

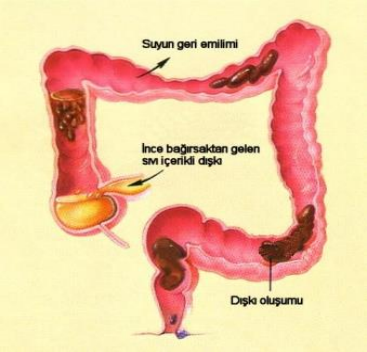
  -Mikroorganizmaların durdurulması

  -Enfeksiyon gelişimini engellemek için alınacak önlemler

MİKROORGANİZMALARIN DURDURULMASI

Hastane Enfeksiyonu Etkenleri

- Metisiline dirençli stafilokoklar (MRSA)



- Vankomisin dirençli enterokoklar

- Çoklu antibiyotik dirençli gram negatif bakteriler

J Infect Chemother xxx (2014) 1–3

Contents lists available at ScienceDirect

Journal of Infection and Chemotherapy

journal homepage: http://www.elsevier.com/locate/jic

Note

Phenotypic and molecular characterization of 942 carbapenem-resistant Enterobacteriaceae (CRE) in southern Brazil☆

Lavinia N. Arend [a, b], Marcelo Pilonetto [b], Christian de Alencar Siebra [b], Felipe F. Tuon [a, *]

[a] Division of Infectious Diseases, Universidade Federal do Parana, Curitiba, PR, Brazil
[b] Laboratório Central do Estado LACEN-PR, Brazil

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.e-jmii.com

ORIGINAL ARTICLE

Risk factors of mortality in patients with carbapenem-resistant *Acinetobacter baumannii* bacteremia

Chang-Pan Liu [a,b,c,d,e,f], Shou-Chuan Shih [c,e,f,g], Nai-Yu Wang [b], Alice Y. Wu [a,c], Fang-Ju Sun [b,e], Shan-Fan Chow [d], Te-Li Chen [h,i,**], Tsong-Rong Yan [d,*]

Journal of Antimicrobial Chemotherapy Advance Access published December 18, 2014

J Antimicrob Chemother
doi:10.1093/jac/dku500

Journal of Antimicrobial Chemotherapy

Exploring the epidemiology of carbapenem-resistant Gram-negative bacteria in west London and the utility of routinely collected hospital microbiology data

R. Freeman[1]*, L. S. P. Moore[1,2], A. Charlett[3], H. Donaldson[2] and A. H. Holmes[1,2]

[1]The National Centre for Infection Prevention and Management, Imperial College London, Du Cane Road, London W12 0NN, UK; [2]Imperic College Healthcare NHS Trust, Du Cane Road, London W12 0HS, UK; [3]Public Health England, 61 Colindale Avenue, London NW9 5EQ, UI

Clinical Microbiology and Infection

Available online 3 December 2014

In Press, Corrected Proof — Note to users

Original article

Current epidemiology and antimicrobial resistance data for bacterial bloodstream infections in patients with hematologic malignancies: an Italian multicentre prospective survey

E.M. Trecarichi[1, ♣, †, ✉], L. Pagano[2, †], A. Candoni[4], D. Pastore[5], C. Cattaneo[6], R. Fanci[7], A. Nosari[8], M. Caira[2], A. Spadea[3], A. Busca[9], N. Vianelli[10], M. Tumbarello[1],

- for the HeMABIS Registry
- —
- SEIFEM Group, Italy

Received 30 June 2014, Revised 16 October 2014, Accepted 20 November 2014, Available online 3 December 2014

Editor: I. Gyssens

RAPID COMMUNICATIONS

Colistin resistance superimposed to endemic carbapenem-resistant *Klebsiella pneumoniae*: a rapidly evolving problem in Italy, November 2013 to April 2014

M. Monaco[1,2], T Giani[2,3], M Raffone[1,4], F Arena[3], A Garcia-Fernandez[1], S Pollini[3], Network EuSCAPE-Italy[5], H Grundmann[6], A Pantosti (annalisa.pantosti@iss.it)[1], G M Rossolini[3,7,8]

1. Department of Infectious, Parasitic and Immune-mediated Diseases, Istituto Superiore di Sanità, Rome, Italy
2. MM and TG have equally contributed to this work
3. Department of Medical Biotechnologies, University of Siena, Siena, Italy
4. Federico II University Hospital, Neaples, Italy
5. The network EuSCAPE-Italy participants are listed at the end of this article
6. Department of Medical Microbiology, University of Groningen, University Medical Center Groningen, the Netherlands
7. Department of Experimental and Clinical Medicine, University of Florence, Florence, Italy
8. Clinical Microbiology and Virology Unit, Florence Careggi University Hospital, Florence, Italy

International Journal of Antimicrobial Agents xxx (2015) xxx–xxx

Contents lists available at ScienceDirect

International Journal of Antimicrobial Agents

journal homepage: http://www.elsevier.com/locate/ijantimicag

Short Communication

Extensively drug-resistant *Acinetobacter baumannii* belonging to the international clonal lineage I in a Russian burn intensive care unit

Aleksandr Solomennyi[a,*], Artemiy Goncharov[b], Lyudmila Zueva[b]

[a] Institute of Ecology and Genetics of Microorganisms, Ural Branch of the Russian Academy of Sciences, Perm, Russian Federation
[b] I.I. Mechnikov North-Western State Medical University, St Petersburg, Russian Federation

Le Infezioni in Medicina, n. 4, 277-282, 2014

Articolo originale

Original article

A nightmare for haematology clinics: extensively drug-resistant (XDR) *Acinetobacter baumannnii*

Acinetobacter baumannii *XDR: un incubo per i reparti di ematologia*

Gökhan Metan[1], Çiğdem Pala[2], Leylagül Kaynar[2], Fatma Cevahir[3], Emine Alp[1,3]

[1]Department of Infectious Diseases and Clinical Microbiology, Erciyes University Faculty of Medicine, Kayseri, Turkey;
[2]Department of Haematology, Erciyes University Faculty of Medicine, Kayseri, Turkey;
[3]Infection Control Unit, Erciyes University Hospital, Kayseri, Turkey

VIEWPOINT

Reconsidering Isolation Precautions for Endemic Methicillin-Resistant *Staphylococcus aureus* and Vancomycin-Resistant *Enterococcus*

Daniel J. Morgan, MD, MS
University of Maryland School of Medicine, VA Maryland Healthcare System, Baltimore.

Gowns, gloves, and hand hygiene are primary tools for preventing transmission of pathogens in health care settings.[1] The Centers for Disease Control and Prevention (CDC) recommends that these approaches be used for all patients as a part of standard precautions, which

from a cluster trial of a related intervention of using gowns and gloves for all patient contact regardless of MRSA or VRE status found that, in a subset of patients, adverse events were no more common when gowns and gloves were used.[5]

Scandinavian Journal of Infectious Diseases, 2014; 46: 547–554

informa
healthcare

ORIGINAL ARTICLE

A sustained endemic outbreak of vancomycin-resistant Enterococcus faecium: A 30-month surveillance study

PAOLA A. CAMPOS, DEIVID W. F. BATISTÃO, PAULO P. GONTIJO-FILHO & ROSINEIDE M. RIBAS

of Biomedical Sciences, Federal University of Uberlândia, Uberlândia MG,

Revista da Sociedade Brasileira de Medicina Tropical 47(4):437-446, Jul-Aug, 2014
http://dx.doi.org/10.1590/0037-8682-0071-2014

Major Article

The occurrence and dissemination of methicillin and vancomycin-resistant *Staphylococcus* in samples from patients and health professionals of a university hospital in Recife, State of Pernambuco, Brazil

Marcelle Aquino Rabelo*[1], *Armando Monteiro Bezerra Neto*[1], *Stéfany Ojaimi Loibman*[1], *Jailton Lobo da Costa Lima*[2], *Ewerton Lucena Ferreira*[3], *Nilma Cintra Leal*[4] and *Maria Amélia Vieira Maciel*[1]

[1]. Departamento de Medicina Tropical, Universidade Federal de Pernambuco, Recife, PE. [2]. Instituto de Ciências Biológicas, Universidade de Pernambuco, Recife, PE. [3]. Departamento de Ciências Biológicas (Microbiologia), Universidade de São Paulo, São Paulo, SP. [4]. Centro de Pesquisas Aggeu Magalhães, Fundação Oswaldo Cruz, Recife, PE.

Kolonizasyonu tedavi etme…

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY MARCH 2014, VOL. 35, NO. 3

ORIGINAL ARTICLE

Ventilator-Associated Pneumonia: Overdiagnosis and Treatment Are Common in Medical and Surgical Intensive Care Units

Veronique Nussenblatt, MD, MHS;[1] Edina Avdic, PharmD, MBA;[2] Sean Berenholtz, MD, MHS;[3,4]
Elizabeth Daugherty, MD, MPH;[5] Eric Hadhazy, MS;[1] Pamela A. Lipsett, MD, MHPE;[3,4]
Lisa L. Maragakis, MD, MPH;[1] Trish M. Perl, MD, MSc;[1] Kathleen Speck, MPH;[5]
Sandra M. Swoboda, RN, MS;[3] Wendy Ziai, MD;[3,6] Sara E. Cosgrove, MD, MS[1]

OBJECTIVE. Diagnosing ventilator-associated pneumonia (VAP) is difficult, and misdiagnosis can lead to unnecessary and prolonged antibiotic treatment. We sought to quantify and characterize unjustified antimicrobial use for VAP and identify risk factors for continuation of antibiotics in patients without VAP after 3 days.

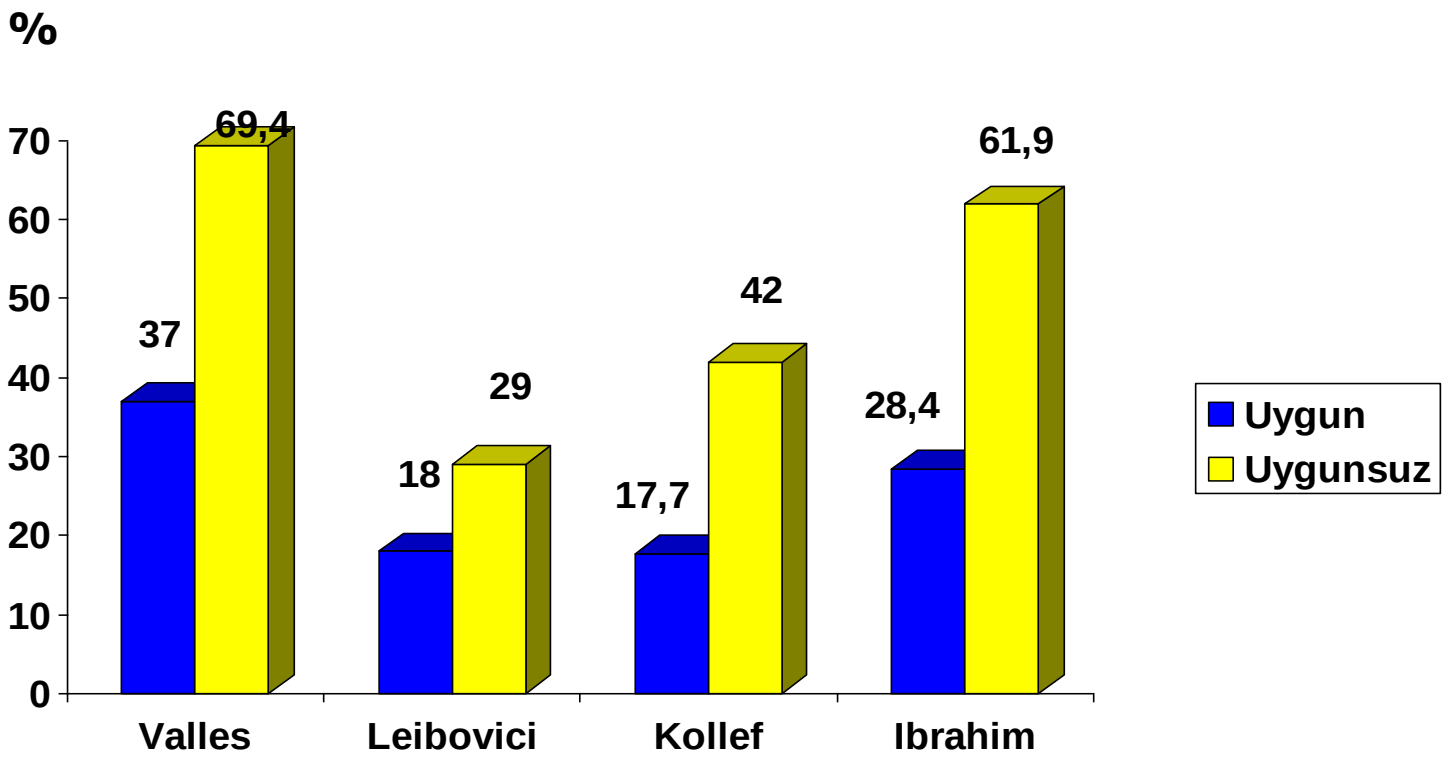
METHODS. Patients suspected of having VAP were identified in 6 adult intensive care units (ICUs) over 1 year. A multidisciplinary adjudication committee determined whether the ICU team's VAP diagnosis and therapy were justified, using clinical, microbiologic, and radiographic data at diagnosis and on day 3. Outcomes included the proportion of VAP events misdiagnosed as and treated for VAP on days 1 and 3 and risk factors for the continuation of antibiotics in patients without VAP after day 3.

RESULTS. Two hundred thirty-one events were identified as possible VAP by the ICUs. On day 1, 135 (58.4%) of them were determined to not have VAP by the committee. Antibiotics were continued for 120 (76%) of 158 events without VAP on day 3. After adjusting for acute physiology and chronic health evaluation II score and requiring vasopressors on day 1, sputum culture collection on day 3 was significantly associated with antibiotic continuation in patients without VAP. Patients without VAP or other infection received 1,183 excess days of antibiotics during the study.

CONCLUSIONS. Overdiagnosis and treatment of VAP was common in this study and led to 1,183 excess days of antibiotics in patients with no indication for antibiotics. Clinical differences between non-VAP patients who had antibiotics continued or discontinued were minimal, suggesting that clinician preferences and behaviors contribute to unnecessary prescribing.

Infect Control Hosp Epidemiol 2014;35(3):278-284

Uygunsuz antibiyotik kullanımı…



Leibovici L, et al. J Intern Med 1998;244:379-386
Kollef M, et al. Chest 1999;115:462-74
Ibrahim EH, et al, Chest 2000;118:146–155
Valles J, et al. Chest 2003;123:1615–1624

REVIEW

Arch. Immunol. Ther. Exp., 2006, 54, 113–120
PL ISSN 0004-069X

DOI 10.1007/s00005-006-0012-4

Novel therapies of multidrug-resistant *Pseudomonas aeruginosa* and *Acinetobacter* spp. infections: the state of the art

Marta Wróblewska

International Journal of Antimicrobial Agents 32S (2008) S71–S78

Contents lists available at ScienceDirect

International Journal of Antimicrobial Agents

journal homepage: http://www.elsevier.com/locate/ijantimicag

Vaccination and passive immunisation against *Staphylococcus aureus*☆

Adam C. Schaffer, Jean C. Lee*

Multidrug-resistant and extensively drug-resistant Gram-negative pathogens: current and emerging therapeutic approaches

Ilias Karaiskos & Helen Giamarellou†
Hygeia General Hospital, 6th Department of Internal Medicine, Athens, Greece

TABLE 8 Experimental β-lactamase inhibitors active against carbapenemases from *Enterobacteriaceae*

Inhibitor	Compound type	Inhibition spectrum (β-lactamase classes)	Susceptible carbapenemases[a]
BLI-489	Penem	A, C, D	KPC type
J-110,411 and J-111,225	1-β-Methyl carbapenem	A, C, B	IMP type
Mercaptomethyl sulfones	C-6-substituted penicillin sulfone	B	VIM and IMP types
2,3-(*S*,*S*)-Disubstituted succinic acids	Succinic acid	B	IMP type
Thiomandelic acids	Thiol	B	VIM and IMP types
Avibactam (NLX104)	Diazabicyclo-octanone	A, C, D	KPC type

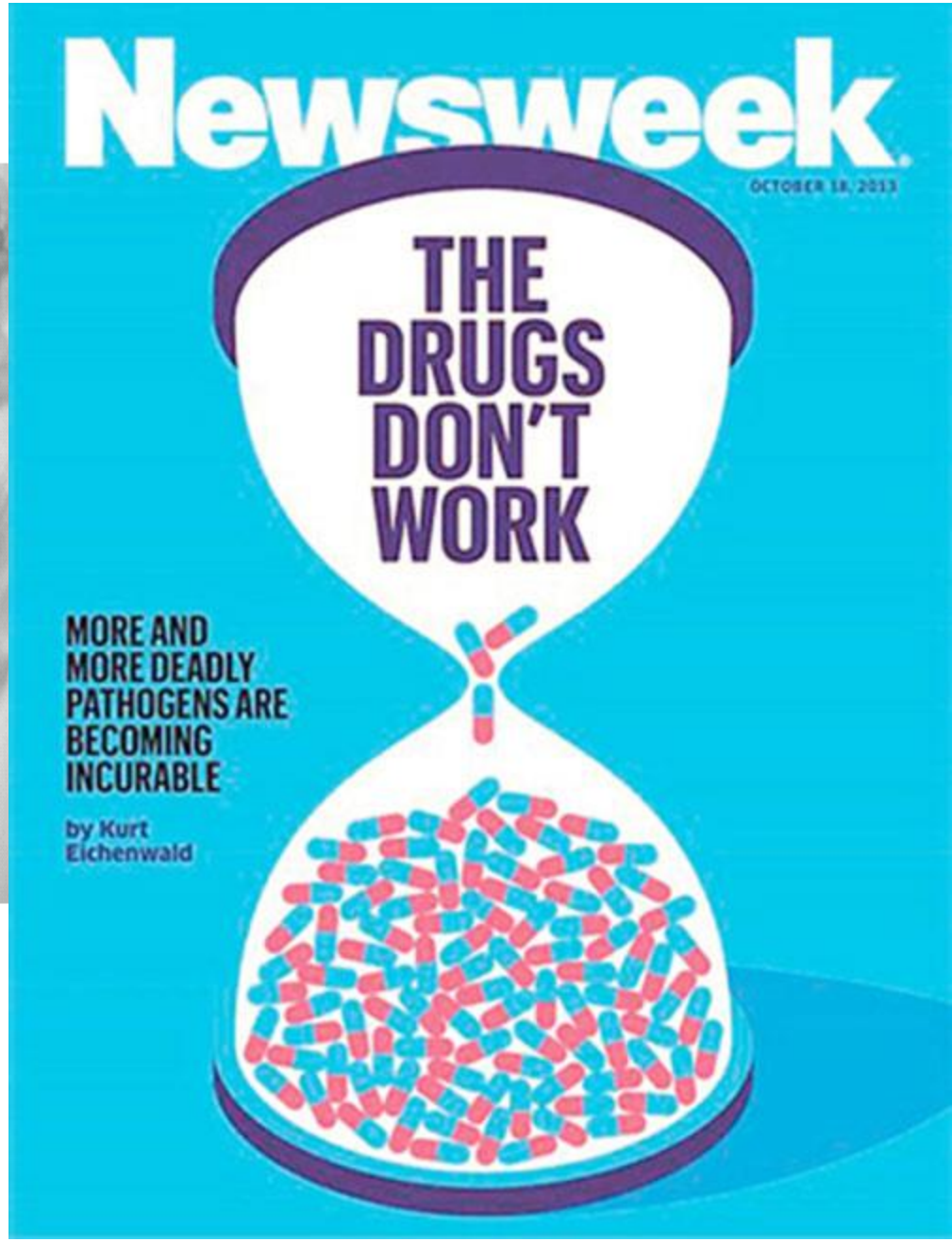
[a] Only carbapenemase types with documented susceptibility to the respective inhibitor are included.

TABLE 7 Experimental antimicrobial agents active against carbapenemase-producing *Enterobacteriaceae*

Drug	Compound type	Relevant target
BAL30072	Siderophore-containing sulfactam	*Enterobacteriaceae*, including MβL producers
Plazomicin (ACHN-490)	Sisomicin derivative	Gram-negative organisms, including carbapenemase producers
GSK2251052	Leucyl-tRNA synthetase inhibitor	Gram-negative organisms, including carbapenemase producers

"Infectious diseases physicians are alarmed by the prospect that effective antibiotics may not be available to treat seriously ill patients in the near future. There simply aren't enough new drugs in the pharmaceutical pipeline to keep pace with drug-resistant bacterial infections, so-called 'superbugs.'"

Joseph R. Dalovisio, MD
IDSA President



Multidrug-resistant bacteria: what is the threat?

Matteo Bassetti[1] and Elda Righi[1]

[1]*Infectious Diseases Division, Santa Maria Misericordia University Hospital, Udine, Italy*

Akılcı antibiyotik kullanımına dikkat !!!

MRSA, VRE, Gr (-)'ler

ENFEKSİYON GELİŞİMİNİ ENGELLEMEK İÇİN ALINACAK ÖNLEMLER

2 temel bileşeni var;

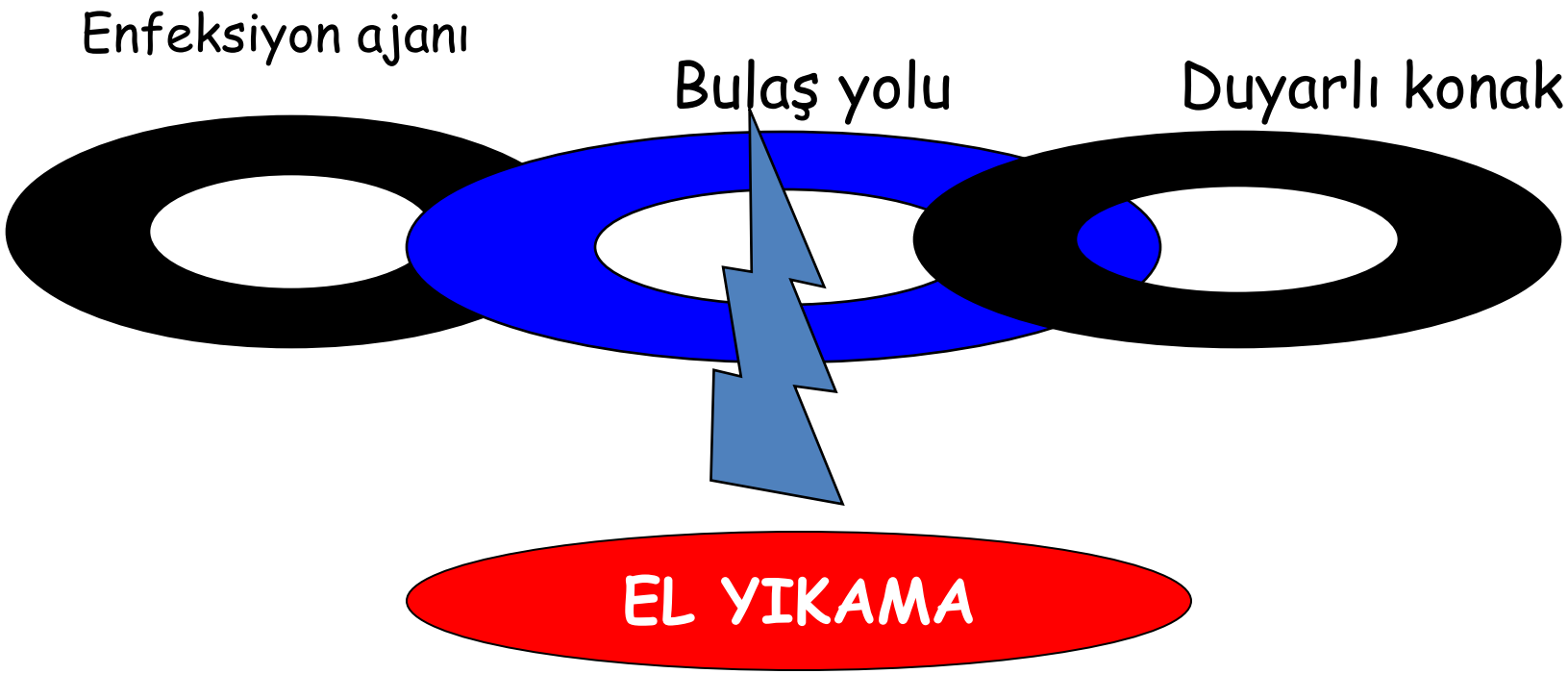
EL HİJYENİ → Eğitimler, eğitim sonrası bilgi değerlendirme, gözlemler, denetlemeler, görseller ….

ÖNLEME DEMETLERİ → Uygulanabilir, kolay, pratik, akılda kalıcı….

EL HİJYENİ

Hastane Enfeksiyonu Bulaş Yolları

Enfeksiyon Zinciri



El Hijyenine Uyumu Artırma Çalışmaları…

- Sürekli eğitim ve eğitim sonrası değerlendirmeler
- Denetimler
- Gözlemler
- Görsel paylaşımlar
- Kısa filmler
- Kişilerin uygulamalara katılımı
- Arkadaşlarına uygulamaları kendilerinin göstermeleri

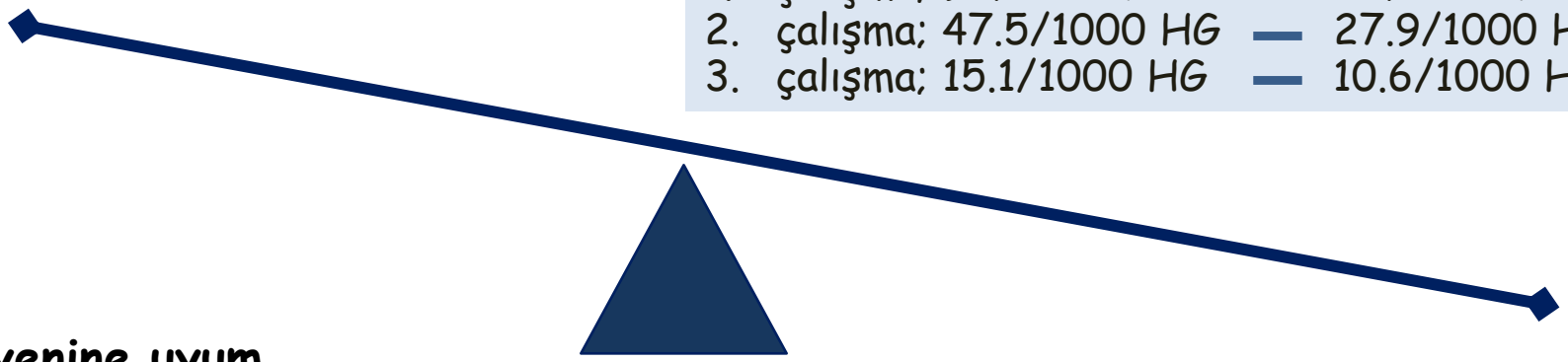
En iyi çalışmalarda bile %100'e yaklaşan değerler YOK…

DEVAMLILIK
önemli bir problem

El Hijyeni ve Hastane Enfeksiyon Oranları Arasındaki İlişki…

1. çalışma; EH uyumu %46 — %69
2. çalışma; EH uyumu %23.1 — %64.5
3. çalışma; EH uyumu %43 — %80

1. çalışma; 96/1000 HG — 47/1000 HG
2. çalışma; 47.5/1000 HG — 27.9/1000 HG
3. çalışma; 15.1/1000 HG — 10.6/1000 HG



El hijyenine uyum

Hastane enfeksiyon oranları

1- Chhapola V, et al. Int J Nurs Pract. 2014 Mar 26. doi: 10.1111/ijn.12283.
2-Rosenthal VD, et al. Am J Infect Cont 2005;33(7):392-7.
3- Won SP, et al. Infect Cont Hosp Epidem 2004; 25(9):742-6.

El Hijyeni ile ilgili çalışmalarda saptanan temel sorunlar…

- Temas öncesi el hijyeni oranları, temas sonrasına göre daha düşük

Novoa AM, et al. Am J Infect Control. 2007 ;35(10):676-83.
Eckmanns T, et al. Infect Control Hosp Epidemiol. 2006;27(9):931-4.
Bischoff WE, et al. Arch Intern Med. 2000;160(7):1017-21.
Saba R, et al. Acta Hematol.2005;113(3):190-3.

- Hawthorne etkisi belirgin….

Eckmanns T, et al. Infect Control Hosp Epidemiol. 2006;27(9):931-4.

- Sağlık çalışanlarının hepsinde uyumun eş olmaması (doktor, hemşire, personel)

Pittet D et al. Ann Intern Med 2004;141:1-8.

- Eldiven çıkarıldıktan sonra el hijyeni sağlama oranı düşük

Pittet D et al. Ann Intern Med 2004;141:1-8.
Sacar S, et al. Am J Infect Control. 2006;34(9):606-9.

Kılavuzlar

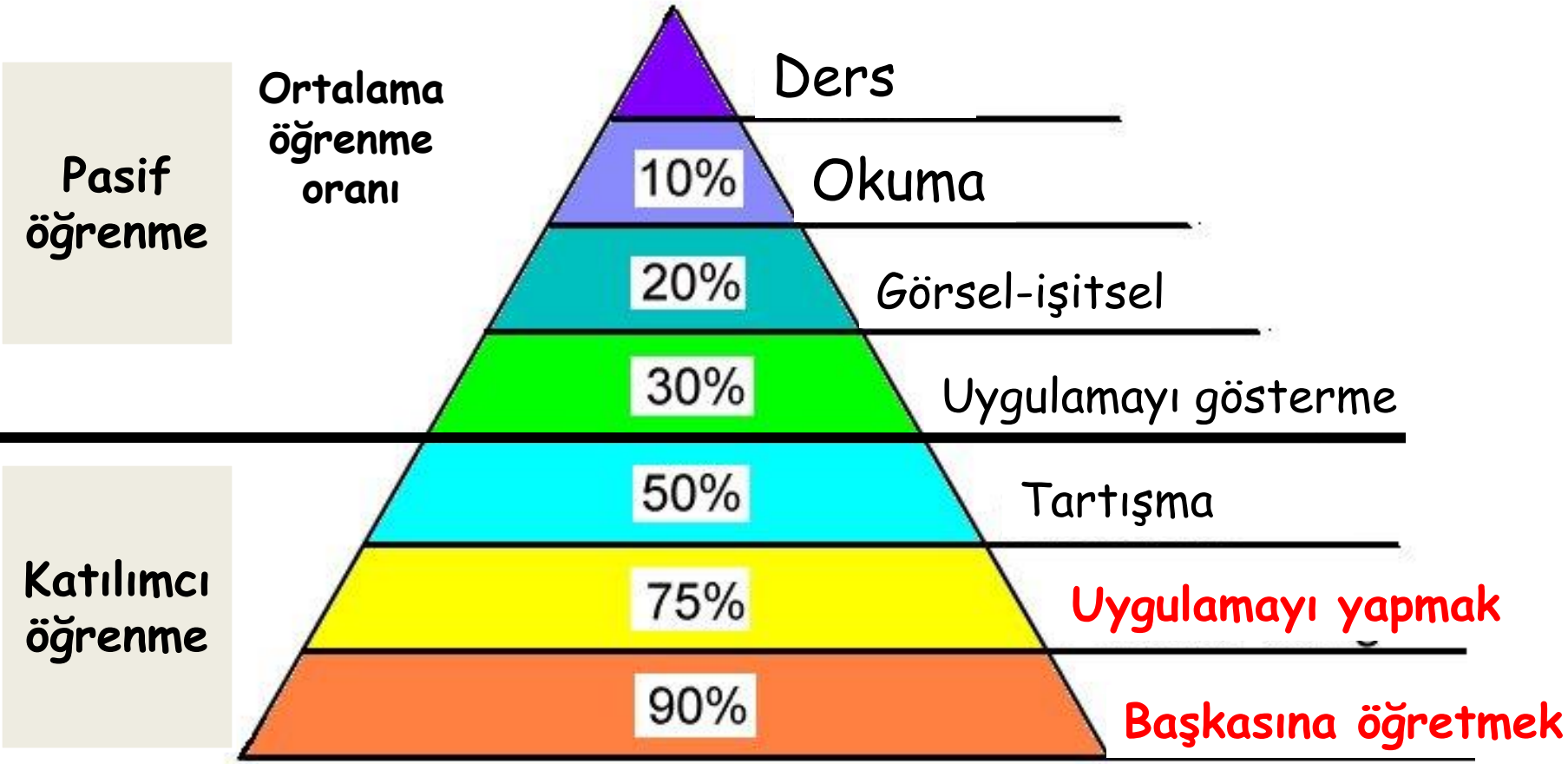
Politikalar

Eğitim

Kalıcı davranış değişikliği yapamıyor

Edwards R.Lancet Infect Dis 2012;12:318-29

Öğrenme Piramidi



SELÇUKLU
TIP FAKÜLTESİ
HASTANESİ

ÖNLEME DEMETLERİ

Kİ-KDE

- El hijyeni
- Klorheksidinle cilt antisepsisi
- Maksimum bariyer önlemleri
- Lokalizayon
- Günlük ihtiyaç değe

ÜKİ-ÜSE

- D

da kateter uygulanması

er bakımı

ıtiyaç değerlendirmesi

- Yatak başının 30-45 derece olması
- Günlük sedasyon tatili
- DVT profilaksisi
- Stres ülseri profilaksisi
- Klorheksidinli oral bakım

Basamakların birinde olan aksama işlemi tamamen geçersiz hale getiriyor !

Eur J Clin Microbiol Infect Dis (2010) 29:1173–1177
DOI 10.1007/s10096-010-0971-6

BRIEF REPORT

Reduction in catheter-related bloodstream infections in critically ill patients through a multiple system intervention

R. Peredo · C. Sabatier · A. Villagrá · J. González · C. Hernández · F. Pérez · D. Suárez · J. Vallés

- Üniversite hastanesi, medikal ve cerrahi YBÜ

- 5 kriter;
- SVK takılması ve bakımının takibi
- Klorheksidinle cilt temizliği
- Subklavian kateter takılması sırasında kontol listesi uyumu
- Femoral kateter takılması sırasında kontrol listesi uyumu
- Kateter gerekliliğinin değerlendirilmesi

Eur J Clin Microbiol Infect Dis (2010) 29:1173–1177
DOI 10.1007/s10096-010-0971-6

BRIEF REPORT

Reduction in catheter-related bloodstream infections in critically ill patients through a multiple system intervention

R. Peredo · C. Sabatier · A. Villagrá · J. González · C. Hernández · F. Pérez · D. Suárez · J. Vallés

No significant differences in the number of patients with central venous catheters during the two periods were observed: catheters were used in 81.5% of patients during the control period and in 80.6% of patients during the intervention period. During the control period, 24 CR-BSI were diagnosed (6.7/1,000 catheter-days); during the intervention period, 8 CR-BSI were diagnosed (2.4/1,000 catheter-days) (relative risk 0.36; 95% confidence interval [CI] 0.16 to 0.80; p=0.015). Nurses interrupted the procedure to correct at least one aspect when completing the checklist in 17.7% of insertions.

- Kontrol listesindeki aksamaların nedenleri;

- Yeterince büyük steril örtü kullanılmaması (%31)
- İşleme katılan tüm personellerin maske takmaması (%29)
- Steril alanın bozulması (%21)
- Kep, maske ve steril önlük kullanılmaması (%13)
- Steril eldiven kullanılmaması (%3)
- Müdahale alanının yetersiz temizliği (%3)

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BRIEF REPORT

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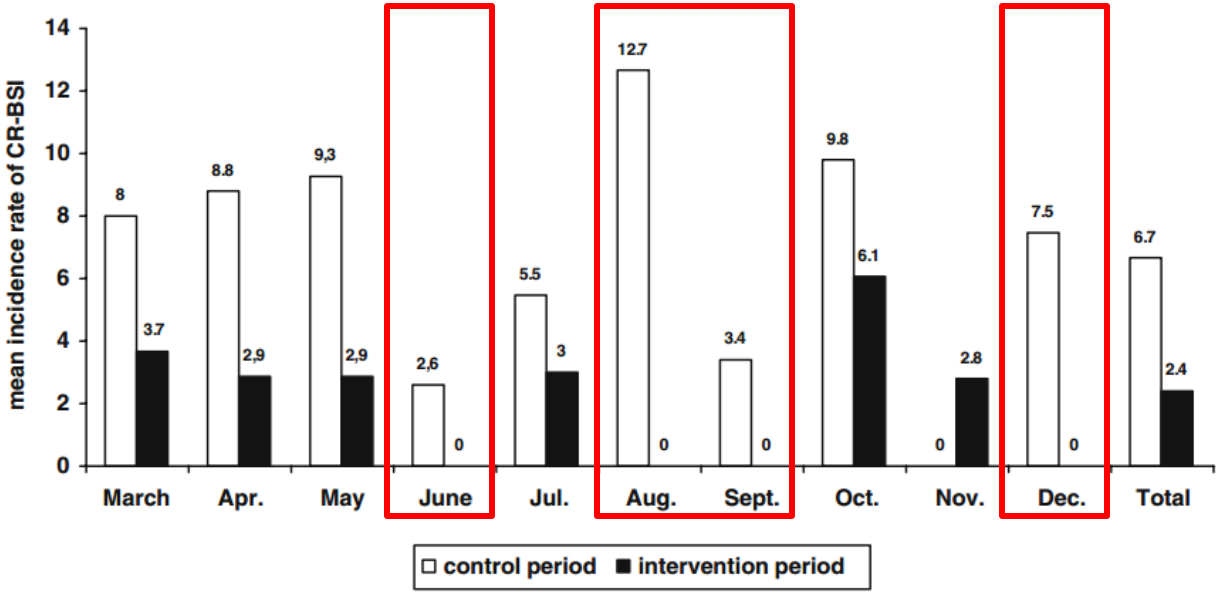
Fig. 1 Incidence of catheter-related bloodstream infections (CR-BSI) (episodes per 1,000 catheter-days)



Zero risk for central line-associated bloodstream infection: Are we there yet?*

Mary-Louise McLaws, MPH, PhD; Anthony R. Burrell, MB, BS

Table 1. Distribution of line days and conventional central line-associated bloodstream infection rates

Intervention Period by Line Type	Total Lines Inserted [CLABSI/Total Line Days]	Range Line Days	Removal Day Adjusted for Catheter Dwell Time, 25th, 50th, 75th Percentiles	Conventional CLABSI Rate/1000 Line Days (95% Confidence Interval) [CLABSI/Total Line Days]	Difference Over Time p (χ^2)
Central lines					
1–12 months	1316 [27/7, 176]	1–58	2, 4, 7	3.8 (2.5–5.5)	.002
13–18 months	2850 [26/16, 100]	1–96	2, 4, 7	1.6 (1.0–2.4)	
Other lines					
1–12 months	466 [7/1, 805]	1–96	2, 4, 7	3.9 (1.6–8.0)	.05
13–18 months	1035 [5/4, 126]	1–248	2, 5, 29	1.2 (0.4–2.8)	

Crit Care Med 2012;40:2:388-93

- Paket önlemlerine uyum ile enfeksiyon hızını azaltmak mümkün…
- Sıfır hız; ancak tanımlı ünite ve belirli süre için geçerli olabilir.

Caserta *et al. BMC Infectious Diseases* 2012, **12**:234
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BMC Infectious Diseases

RESEARCH ARTICLE Open Access

A program for sustained improvement in preventing ventilator associated pneumonia in an intensive care setting

Raquel A Caserta[1*], Alexandre R Marra[1], Marcelino S Durão[1], Cláudia Vallone Silva[2], Oscar Fernando Pavao dos Santos[3], Henrique Sutton de Sousa Neves[4], Michael B Edmond[5] and Karina Tavares Timenetsky[1]

- Ekim 2008-Aralık 2010
- 21984 hasta günü
- 6052 ventilatör günü
- VİP hızı;
  2009 yılında 1.3
  2010 yılında 2.0
- Bundle uyumu %90

Phase 1	Phase 2	Phase 3
• VAP bundle alone	• VAP bundle + • Oral decontamination with chlorhexidine 0.12%	• VAP bundle + • Oral decontamination with chlorhexidine 0.12% + • Continuous aspiration of subglottic secretions (CASS)

Figure 1 Study design. *Phases 1, 2 and 3 (from April 2007 to September 2008) are a consequence of our previous publication [4]. We extended data collection in this present manuscript (from October 2008 to December 2010) in phase 3.

Caserta et al. BMC Infectious Diseases 2012, 12:234
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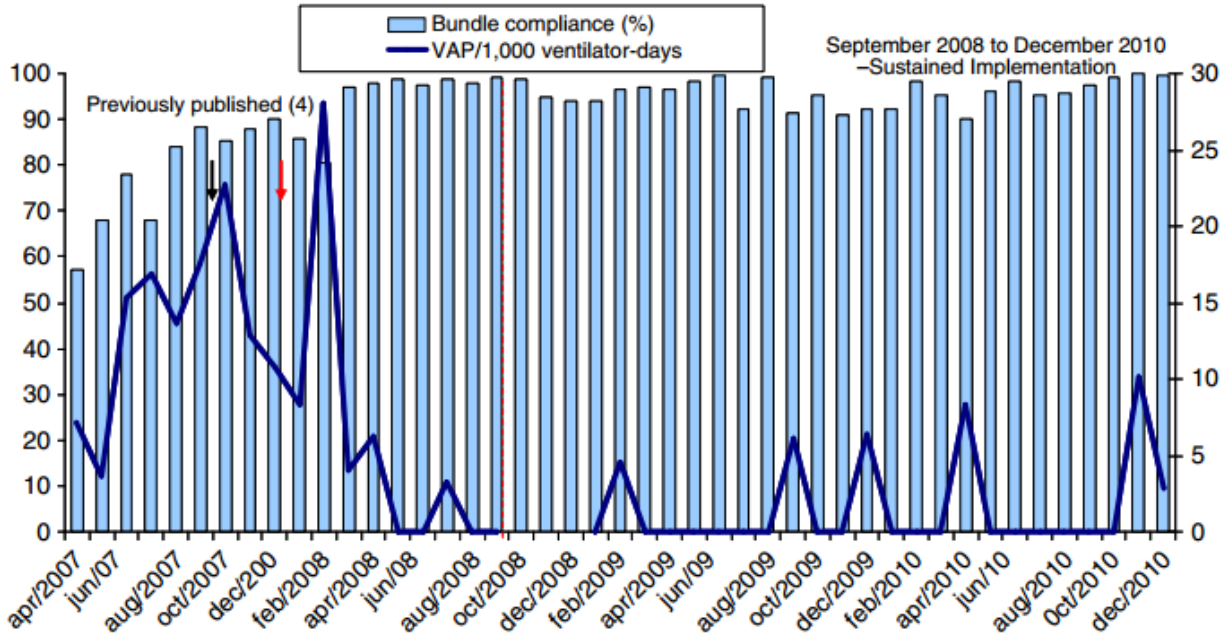

Figure 2 Bundle compliance and VAP (ventilator associated pneumonia) rate from April 2007 to December 2010. This chart shows extended data from the study published in AJIC 2009 (reference number 4). Oral decontamination with chlorhexidine 0.12% (since October/2007). Continuous aspiration of subglottic secretions (CASS) endotracheal tube (since February/2008).

Inappropriate use of urinary catheters in elderly patients at a midwestern community teaching hospital

Radha Ramana Murthy Gokula, MD, John A. Hickner, MD, MS, and Mindy A. Smith, MD, MS
Lansing, Michigan

Background: An estimated 4 million patients per year in the United States are subjected to urinary catheterization. Approximately 25% of patients who are hospitalized have an indwelling urinary tract catheter placed at some time during their hospital stay and nosocomial urinary tract infections develop in 5% per day, with associated bacteremia in 4% of patients.

Results: On chart review we found an appropriate indication for catheterization for 46% of these patients. A physician or nurse explicitly documented the reason for catheter placement in only 13%. No order for catheterization was written in 33% of the charts. Mean duration of catheter use was 3 days.

(Am J Infect Control 2004;32:196-9.)

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Preventing Catheter-Associated Urinary Tract Infections in Acute Care

The Bundle Approach

Linda Andreessen, DNP, RN, ANP-BC;
Mary H. Wilde, PhD, RN;
Pam Herendeen, DNP, RN, PNP-BC

Table 2. Catheter Device Days per Unit

Unit	Pre, n	Post, n	Maximum Days' Use	Sum of Catheter Days	Pre, Mean (SD)	Post, Mean (SD)	*t* test	*P*
All units	90	51	23 pre; 9 post	505 pre; 148 post	5.61(5.15)	2.90(2.23)	4.33	<.01
Unit A	40	22	23 pre; 7 post	242 pre; 53 post	6.05(5.87)	2.41(1.68)	3.66	<.01
Unit B	26	16	20 pre; 9 post	157 pre; 49 post	6.03(5.11)	3.06(1.94)	2.11	.159
Unit C	24	13	15 pre; 8 post	106 pre; 46 post	4.42(3.69)	3.54(2.98)	0.796	.128

- Üriner kateter kullanımında %57 azalma ve kateter kullanım sürelerinde %71 kısalma tespit edilmiş

RESEARCH
doi: 10.1111/nicc.12038

Knowledge levels of intensive care nurses on prevention of ventilator-associated pneumonia

Esra Akın Korhan, Gülendam Hakverdioğlu Yönt, Serap Parlar Kılıç and Derya Uzelli

Table 1 Nursing personnel correct answers in the VAP prevention knowledge test

Item	Percentage of correct answers
1. Oral versus nasal route for intubation	79
2. Frequency with which the ventilator circuits are replaced	62.3
3. Type of humidifiers	39.1
4. Frequency with which the humidifiers are replaced	17.4
5. Open versus closed aspirations systems	68.8
6. Frequency with which the aspiration equipment is replaced	16.7
7. Endotracheal tubes with subglottic aspiration	23.9
8. Kinetic versus standard beds	54·3
9. Patient position	29·7

YBÜ hemşirelerinin VIP korunma önlemlerine yönelik uygulama bilgisinin zayıf olduğu tespit edilmiştir.

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Zero Risk for CLABSI… is this realistic?

Naomi P. O'Grady, MD
Critical Care Medicine Department, National Instit
Center Drive MSC 1662, Bethesda, MD 20892

Çok fazla parametrenin etkili olması nedeniyle azaltmak mümkün fakat sıfır gerçekçi bir yaklaşım değil!

ssociated Pneumonia: Is Zero Possible?

Klompas
ction Control Department, Brigham and Women's Hospital, and Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute, Boston, Massachusetts

(See the article by Bouadma et al, on pages 1115–1122.)

ÜLKEMİZDE…

EKK Başkanı
Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji Temsilcisi

- Başhekim yard/ Dekan yard
- Dahili Bilimler temsil
- Cerrahi Bilimler temsil
- Enfeksiyon Kontrol hekimi
- Enfeksiyon Kontrol Hemşiresi
- Mikrobiyo Lab Temsil
- Hastane müd
- Eczacı
- Baş hemşire

Enfeksiyon Kontrol Ekibi

"Yataklı Tedavi Kurumları Enfeksiyon Kontrol Yönetmeliği"
(11 Ağustos 2005, 25903 sayılı Resmi Gazete)

Enfeksiyon Kontrol Hemşiresi
İdari birimler
Enfeksiyon Kontrol ekibi
Cerrahi ve dahili birimler

HASTANE ENFEKSİYONLARI = ÇOK BİLİNMEYENLİ BİR DENKLEM

ANTİBİYOTİK KULLANIMI

ÖNLEME DEMETLERİ

EL HİJYENİ

Zero: What Is It, and How Do We Get There?

Victoria Fraser, MD

Günümüzdeki bilimsel yaklaşımla hastane enfeksiyonlarının tamamının önlenebilir olduğunu söylemek mümkün değildir….

Hastane enfeksiyonlarının hızını azaltmak ve önlemeye çalışmak çok daha bilimsel ve gerçekçi bir yaklaşım olacaktır….

İlginize teşekkür ederim